
OTAGO
EXPORTS
to the world

From its nesting place on the Otago coast, the Royal Albatross moves out to girdle the globe. Otago businessmen are following suit, reaching out across the Pacific and still further, to tell the world what they produce. They have combined to produce this book which shows the wide variety of products exported from Otago, New Zealand.

New Zealand and the world

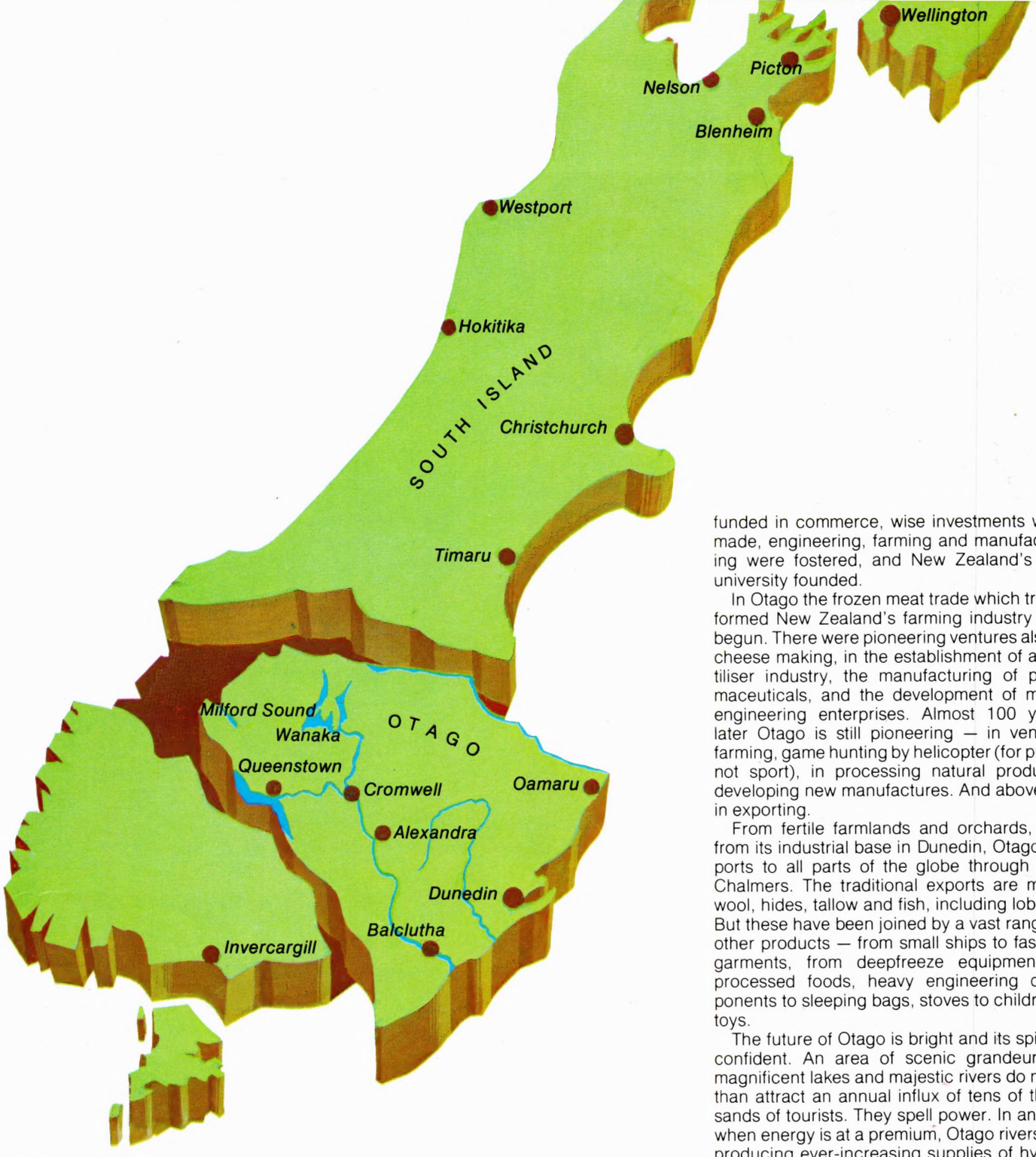
New Zealand is one of the world's smallest countries. It is also one of the world's most innovative countries with a proud tradition of pioneering — in social legislation, in inventive design, in exploration and mountaineering, in agricultural research. The pioneering drive and adaptability which have become the hallmark of New Zealand society are nowadays evident in the field of exporting. New Zealand has been exporting primary produce for well over a century. Today she exports a wide range of products and a comparable range of expertise. Seeking out and creating favourable opportunities has become an essential part of the New Zealand way of life.

New Zealand: Where Is It?

In the south-west of the Pacific, that broad ocean which stretches across one-third of the earth's surface, New Zealand is located. Her nearest neighbour, another member of the British Commonwealth, is Australia — 1800 kilometres across the Tasman Sea. From the rim of the Pacific Basin, New Zealand looks out to San Francisco and Panama 10,000 kilometres away, to Tokyo and Singapore at similar range, and to Britain and Europe on the other side of the globe. Increasingly, however, New Zealand's gaze is concentrated on those countries which also border the Pacific for she has more to share with them than the rolling tides.

New Zealand: History and Population

By world standards the population is small — not much more than 3 million — but New Zealand is a highly developed and productive country with exciting potential. Organised European settlement dates back to the middle of last century. The first million of population was reached in 1908, the second in 1952, the third in 1973. The growth rate is likely to accelerate as New Zealand continues to develop secondary industries based on the top quality products of its pastoral and pastoral-linked economy. For 100 years there was a ready market in Britain for almost everything New Zealand could produce, but times have changed. As access to Britain and Europe has become more difficult, so New Zealand has adopted a more independent and self-reliant attitude. The range of exports has been greatly broadened, market research has become more intensive. Challenges have produced new skills. New Zealand has more than ever to offer the world and she is selling more vigorously. Her geographical position may be remote, but New Zealand is literally in the market places of the world with goods and services to offer.



Otago: where and what?

Otago is in the south of New Zealand. Just as the world map shows New Zealand to be geographically distant from other countries, so the map of New Zealand shows Otago to be far removed from the seat of Government in Wellington, and the major domestic markets around the metropolis of Auckland. But New Zealand has used initiative and enterprise to overcome the disadvantages of distance, and Otago has done the same. Indeed, it is in some respects a pacesetter in the export field.

Any challenge demands a response, and the Otago response to the challenge of space and time has been to preserve its pioneering spirit, to nurture old skills and to develop new ones with efficiency and determination.

Many of the first settlers in Otago, from 1848 onwards, were Scots. They brought to New Zealand their traditions of thrift, love of learning, enterprise and hard work. Although the population of Otago has long since taken on a cosmopolitan air the old qualities have not been lost. Even the gold rush of the 1860s which brought great prosperity did not cause the region to lose its balance. New ventures were funded in commerce, wise investments were made, engineering, farming and manufacturing were fostered, and New Zealand's first university founded.

In Otago the frozen meat trade which transformed New Zealand's farming industry was begun. There were pioneering ventures also in cheese making, in the establishment of a fertiliser industry, the manufacturing of pharmaceuticals, and the development of major engineering enterprises. Almost 100 years later Otago is still pioneering — in venison farming, game hunting by helicopter (for profit, not sport), in processing natural products, developing new manufactures. And above all, in exporting.

From fertile farmlands and orchards, and from its industrial base in Dunedin, Otago exports to all parts of the globe through Port Chalmers. The traditional exports are meat, wool, hides, tallow and fish, including lobster. But these have been joined by a vast range of other products — from small ships to fashion garments, from deepfreeze equipment to processed foods, heavy engineering components to sleeping bags, stoves to children's toys.

The future of Otago is bright and its spirit is confident. An area of scenic grandeur, its magnificent lakes and majestic rivers do more than attract an annual influx of tens of thousands of tourists. They spell power. In an age when energy is at a premium, Otago rivers are producing ever-increasing supplies of hydro-electricity. This is the cheapest source of power available to the nation and among the cheapest in the world. Multiple control of river flows is providing irrigation, thus further enriching the hinterland with its pastures and its stone fruit and pip fruit orchards and increasing export potential.

The rivers of Otago help to turn machines elsewhere in the country but increasing use will be made of power in local industry. The scent of development and expansion is in the air. And the more Otago produces, the more it will have to sell abroad. This enterprising province is seeking new markets, fresh opportunities, and doing so in the knowledge that it has the stable labour force and the sound financial experience to back up the efforts of the developers. Otago may seem a long way from YOUR markets but it has the goods, and needs only the invitation to deliver them.

Otago scenic glory

The calm waters of Milford Sound and the rugged grandeur of Mitre Peak typify the beauty of Otago. Tourists are drawn as if by a magnet to this area of mountains, lakes and rivers. These scenic glories cannot be exported, but Otago reaches out to the world through the enterprise of its farmers and manufacturers and technicians. The combination of natural beauty and developed skills makes Otago an area of very special note.


SEEKER
TAINUI II

Introduction

by the Rt Hon. Brian Talboys, Deputy Prime Minister and Minister of Overseas Trade.

This publication is further evidence of the individual and collective initiative so characteristic of business firms in the Otago region of New Zealand's South Island.

Aimed especially at trade buyers in other countries, it indicates the depth and diversity of manufacturing industries in Otago, the range and quality of major products, and gives some idea of the workmanship, manufacturing and management skills involved in their production.

Diversification and expansion of overseas trade is essential to New Zealand's continuing progress. There is no better way of achieving this than by seeking to supply more of the needs of our friends and neighbours around the Pacific, and beyond.

Otago businessmen are doing their share in developing New Zealand's trade contact with these areas, and in producing so many goods and services to meet different market requirements.

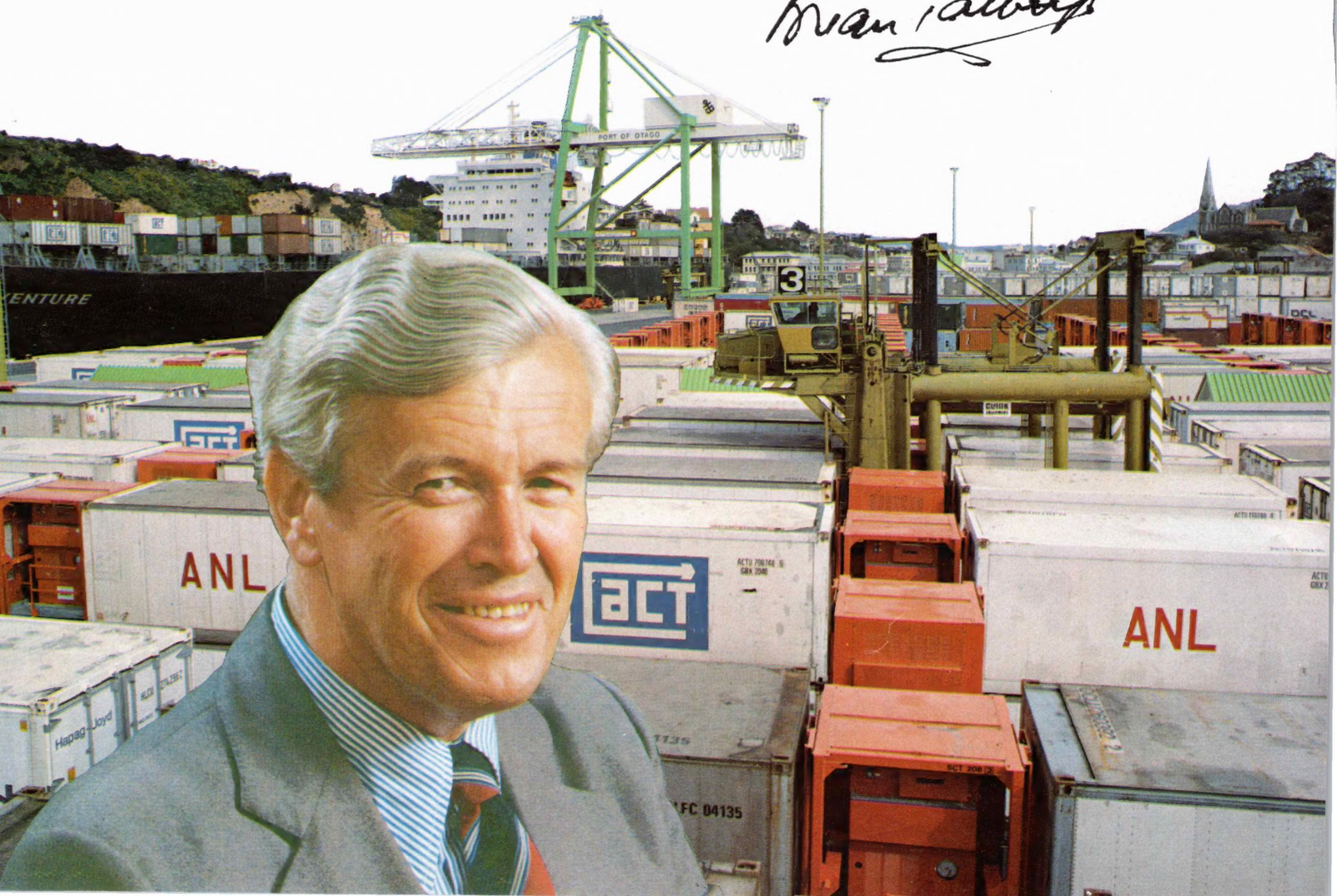
In recent years, the Trade Promotion Council has presented special Export Awards to a number of Otago companies, in recognition of their enterprise and achievements in the export field.

The success of these firms in highly competitive international markets has prompted others to realise that they, too, have design and production skills and capacity for which there is a demand far beyond their traditional markets within New Zealand.

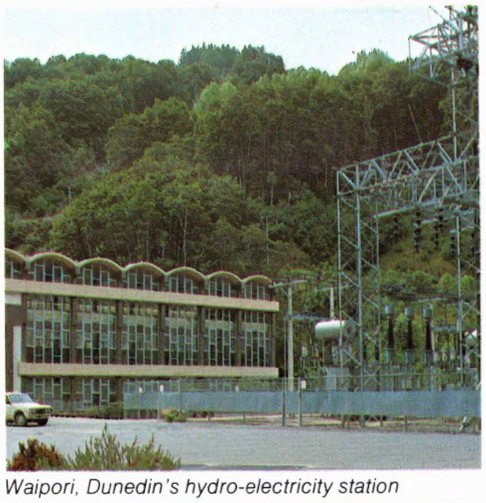
The result is that more and more Otago firms are beginning to achieve their full potential as designers, manufacturers and exporters of an increasingly wide range of products.

I wish them well in their continuing promotional efforts.

Brian Talboys



Logging in Council forests



Waipori, Dunedin's hydro-electricity station

Dunedin Airport

Partners in progress

Dunedin is the gateway to the Province of Otago, and a city of great natural beauty as well as of commercial renown. The controlling authority is the Dunedin City Council which is closely attuned to the needs and aspirations of exporters because it is a trading entity and an exporter itself. As well as providing the ancillary services which companies require, in the form of electricity, gas and transportation, the Council harvests and exports timber.

A notable feature of Dunedin life is the spirit of co-operation which exists. The City Council, the companies in the metropolitan area and the citizens work together in close harmony. Industrial unrest is rare, the labour force is exceptionally stable, the quality of life is high.

Energy

The diverse nature of the Dunedin City Council's activities makes it the largest trading local body in New Zealand. It is in the unique position of operating and maintaining its own hydro-electricity stations on the Waipori River fed by the man-made Lake Mahinerangi. Power was first drawn from these stations more than 70 years ago. A further energy service to the city is provided by a modern gas-generating plant.

Forestry

The City Council has a substantial forestry investment in Otago with more than 7000 ha of exotic trees. Its policy is for continued development of this renewable resource which provides valuable revenue for the city. Timber is milled under contract and exported to Korea, Japan and China.

Tourism

Reference is made elsewhere in this book to the rugged grandeur of Otago's mountains and the beauty of its large lakes. Dunedin is only a few hours from some of New Zealand's most spectacular tourist attractions which prove popular all year round because of the ski fields and ice skating which winter brings into use. Queenstown, Wanaka and Te Anau are flourishing resorts, Milford Sound is internationally famous, and the Haast Pass road to the west coast of the South Island is of spectacular beauty. A little further north New Zealand's highest mountain, Mount Cook, is the centrepiece of the magnificent Southern Alps.

Facilities and attractions

Located at Momona, a few kilometres south of the city, is Dunedin Airport which is maintained and managed by the City Council. It is served by Air New Zealand jets and scheduled flights by Mount Cook Airlines. Charter and hire services are also available.

In the city itself is the University of Otago, the oldest university in New Zealand. The university and the city have developed side by side for well over a century and students come from all parts of the country as well as from overseas. The special schools which teach medicine, dentistry, home science, surveying, mineral technology and physical education have a high reputation at home and abroad.

Facilities are available for every type of sport and the city takes a lively interest in the creation of good recreational amenities, including an Olympic-size swimming pool, a large indoor sports stadium, a hot salt pool adjacent to a city beach and a municipal golf course. There are also several other fine courses in and near the city and numerous tennis courts.

The cultural tradition is also strong, with an excellent theatre, a civic orchestra, and numerous choirs, and a splendid new library now being built.

Dunedin city skyline

Port Chalmers showing container terminal

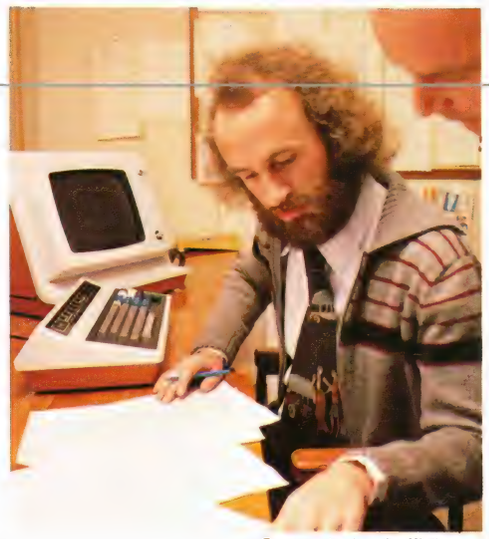
By ships we live

The Port of Otago today, is a versatile operation with completely modern facilities for all methods of freight transhipment.

The Port of Otago is the pride of Otago. It has the highest average rate of container handling in New Zealand and its rate per hour compares favourably with overseas container ports.

The reason for this pride and for this achievement lies with people rather than wharves, machinery and equipment. People provide the port's most important resource — the people who pilot the ships, man the tugs, plan the container loadings, work the cranes. They are competent, responsible individuals who are proud of their reputation, proud of their port and their province, and proud to be serving their nation. The aim of the Otago Harbour

Stowing containers in hold.



Computerised efficiency

Board and the shipping industry is to provide the best possible service, not spasmodically but constantly.

Fine Facilities

The Otago Harbour Board interests are diverse. Its primary port operations are concentrated at two locations namely Port Chalmers (container terminal and forestry products) and the Dunedin wharf system handling oil products, bulk fertiliser, Ro/Ro shipping and general cargo.

The channel from the entrance to Port Chalmers has a designed minimum low water depth of 12.2 m (40 feet) over a bottom width of 193 m (600 feet) and the largest container ships can be regularly handled at all states of the tide, day and night.

The Victoria Channel to the Dunedin wharves has a minimum low water depth of 7.6 m (25 feet) and is used by ships up to 600 feet in length and 26 feet draught.

The port of Otago today, is a versatile operation, with completely modern facilities for all current methods of freight transhipment by sea: a container terminal; roll-on, roll-off linkspan with ample back up area; bulk storage and loading facilities for logs and woodchips; modern wharves equipped with cargo sheds and shore cranes for conventional general cargo ships; special separate wharves for both bulk fertilizer, and oil products.

Container Terminal

The most important facility operating at present is the container terminal and the reason for this is obvious. New Zealand's trade with its three most important markets — UK/Europe, North America and Japan — is now up to 90 per cent containerised. Even ports in the Middle East, Africa, and the Peoples Republic of China, which many thought would continue with conventional cargo handling for many years, are now rapidly preparing for containers.

Features vital to the development of a container terminal are that it should have good wharf and crane facilities; a sufficiency of container handling equipment, a stacking area for containers; power points to serve refrigerated containers; container washing facilities, packing and unpacking area and other ancillary facilities.

Port Chalmers has full facilities for transhipment of containers by rail.

Container washing facility.

At Port Chalmers facilities include: a berth 1,000 feet (326 m) long; two cranes; ten straddle carriers and three container-handling fork trucks; ability to stack 4,000 containers; 940 outlets for refrigerated containers; a packing/unpacking shed of 460 sq. metres; good repair facilities; good railway facilities.

The computerised container tracking system has proved highly successful and is of great practical benefit to shipping lines using the port. It provides full and accurate information about their container stocks on a daily basis.

The unique wash pad system has proved highly efficient. Containers are dried by a system of ducted, warm, dehumidified air and this has enabled a traditional bottleneck to be completely eliminated. They are being dried in all weather conditions in a little over an hour and the facility has already put through over 100 washed and dried boxes in a single day.

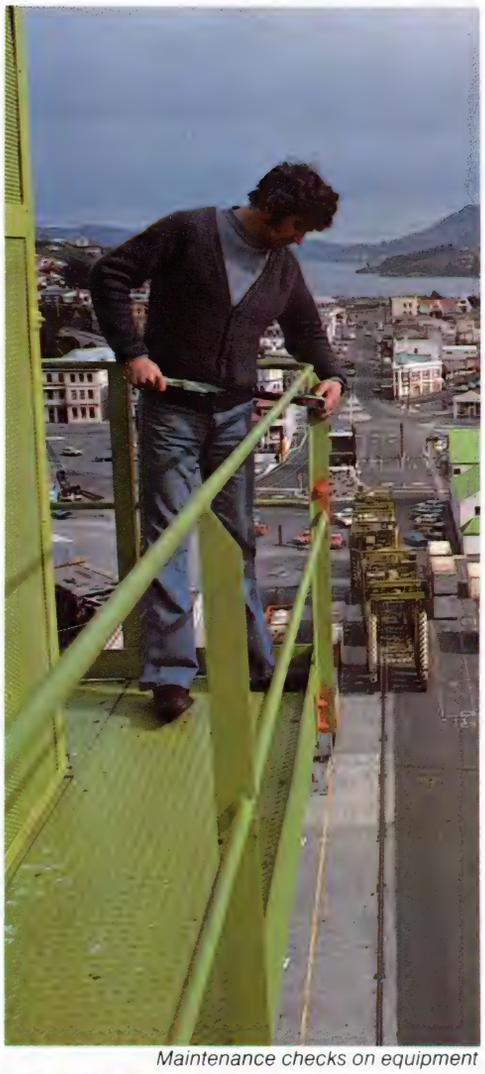
Instrument of Prosperity

Otago's dependence on its port dates back to the very first days of European settlement. In 1848 Dunedin was selected as a site for a community because of its fine natural harbour, and grew and prospered because of this facility.

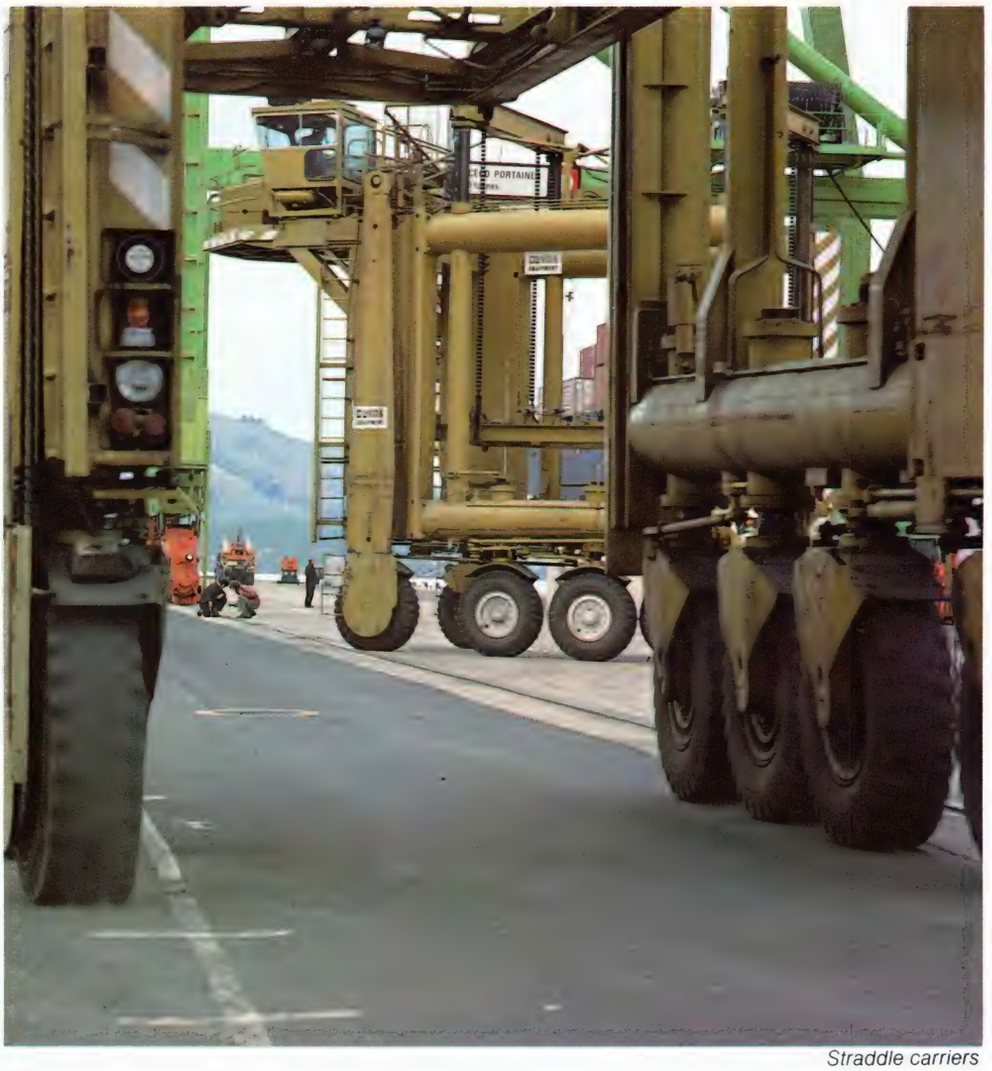
The importance of the harbour has never diminished, and has continued to increase.

In 1882, the sailing ship "Dunedin" loaded New Zealand's first shipment of frozen cargo at Port Chalmers. This shipment consisted of 4,909 mutton carcases and 256 kegs of butter.

This shipment was the beginning of an economic revolution for New Zealand and the stimulus which led shipping companies to pool resources and found the world's first fleet of refrigerated ships. Pioneer shipping lines such



Maintenance checks on equipment



Straddle carriers

OTAGO HARBOUR BOARD

Vehicle maintenance

as Shaw Savill and Albion retain their association with the Port of Otago through their involvement with the OCL (Overseas Containers Ltd) Group.

In 1971 there was another historic "first" for the port. The first containerised shipment of frozen meat to leave New Zealand sailed from Port Chalmers aboard a Columbus line container ship. This event was the culmination of years of planning by the Otago Harbour Board, and it was fitting that once again the port should be a pioneer of an entirely new type of transportation.

Shipping lines or consortiums serving the Port of Otago and their local branches or agents:

United Kingdom/Europe Trade

ACTA/ANL: Tapley Swift Shipping Agencies Ltd., 40 Jetty St., Dunedin. P.O. Box 385; Telephone 740-810. Telex: N.Z. 5788. Cable: Trident. Hamburg Sud: Columbus Maritime Services Ltd, 20 Crawford St., Dunedin. P.O. Box 630. Telephone 777-005. Telex: NZ 5759. Cable: Maritime. OCL (Overseas Containers Ltd): P & O S.N. New Zealand Division, 11 Crawford St., Dunedin. P.O. Box 804; Telephone 779-454. Telex: NZ 5213. Shipping Corporation of N.Z. Ltd: Corner Crawford and Water Streets, Dunedin. P.O. Box 904. Telephone 776-076. Telex: NZ 5528. Hapag-Lloyd, NedLloyd, Lloyd-Triestino, Compagnie Generale Maritime: SeaBridge New Zealand CML Building, Princes St., Dunedin. Telephone 773-595. Telex: N.Z. 5234.

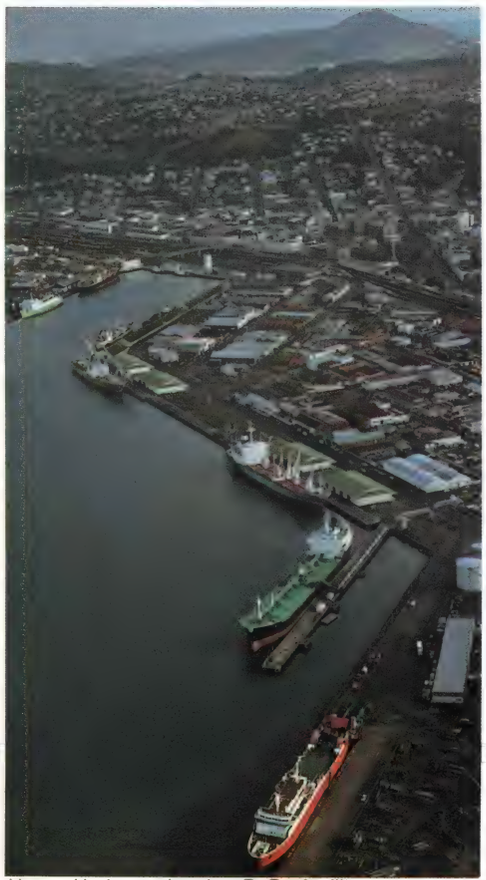
Modern tugs to assist berthing

East Coast North America & Europe

Columbus Line: Columbus Maritime Services Ltd, 20 Crawford St., Dunedin. P.O. Box 630. Telephone 777-005. Telex: NZ 5759. Cable: Maritime. PACE line: Tapley Swift Shipping Agencies Ltd., 40 Jetty St., Dunedin. P.O. Box 385, Telephone 740-810. Telex: NZ 5788. Cable: Trident.

Middle East

Bounty Line: Seatrans Consolidated (NZ) Ltd., 2 Broadway, Dunedin. P.O. Box 708. Telephone 771-201. Telex: NZ 5669. Blue Star Line: Tapley Swift Shipping Agencies Ltd., 40 Jetty St., Dunedin. P.O. Box 385. Telephone 740-810. Telex: NZ 5788. Cable: TRIDENT.



Upper Harbour showing RoRo facility and conventional wharves.

Japan

CSCS (Crusader Swire Container Service): P & O SN New Zealand Division, 11 Crawford St., Dunedin. P.O. Box 804, Telephone 779-454. Telex: NZ 5213. Shipping Corporation of N.Z. Ltd: Corner Crawford and Water Streets, Dunedin. P.O. Box 904. Telephone 776-076. Telex: NZ 5528. Japan Line: Tapley Swift Shipping Agencies Ltd., 40 Jetty St., Dunedin. P.O. Box 385. Telephone 740-810. Telex: NZ 5788. Cable: Trident. Mitsui/OSK: Seatrans Consolidated (NZ) Ltd., 2 Broadway, Dunedin. P.O. Box 708. Te 771-201. Telex: NZ 5669.

see the index for address details

1/ Manufacturing

Aerial view of factory and storage area.

Isofreeze Containers go out to the world from Dunedin — again and again. Manufactured at the source of supply, adjacent to a major container port, they are designed by Concargo and built under licence in New Zealand by George & Ashton Ltd., a subsidiary of Alex Harvey Industries Ltd. Already more than 20 major shipping lines are carrying all types of perishable and frozen commodities around the world in Concargo containers. And George & Ashton Ltd. is the only manufacturer in New Zealand producing containers to ISO standards.

The demand for these Dunedin-built containers has been such that, in the space of only two years, George & Ashton have had to double their work force and increase factory floor space to six times the previous area.

The containers are constructed to rigid specifications under the supervision of qualified engineers. They are built to Lloyds standards and the requirements of TIR, ISO and ECE.

AHI's current customers include Farrell Lines Inc of New York; Hamburg Sud (Columbus) and Robert Kukla K.G. of Germany and the Shipping Corporation of New Zealand.

More than 1,000 containers have been produced in a single order.

Container repairs

AHI also maintains at Dunedin the most comprehensive container repair facility in the Australasian region.

Major repairs are made to all types of containers — insulated or dry-freight; metal or glass fibre.

Assembling containers.

Thermal testing rig.

A summary of the benefits of this type of construction is as follows:

Strength: The laminated construction is recognised in such applications as commercial vehicle body construction, as having a great deal of structural strength, combined with comparatively light weight.

Durability: Smooth, low-friction surfaces make Isofreeze containers resistant to damage from other containers.

Easy repair: Minor damage can easily be repaired with George & Ashton container repair kits.

Insulation efficiency: Components that could cause thermal bridging are not used.

Easy cleaning: The crevice-free, chemically resistant gel coat surface is easily cleaned by steam or dilute alkalis.

Economy: This type of container has seen ten years of service overseas and has proved itself economical in both first cost and in maintenance.

Standard sizes: The units are available in sizes 20 or 40 feet long by 8 feet or 8 foot 6 inches high, by 8 feet wide.

Refrigeration options: Isofreeze containers can be fitted with portholes for "clip-on" type, temporary refrigeration at container terminals or for ships main distribution refrigeration systems.

a Name that carries a lot of weight around the world

How the containers are built

Isofreeze containers are built on the well-tried "sandwich" principle. Plywood and polyurethane foam are bonded between two FRP laminates to give a rigid pierce-resistant panel of high strength. High quality exterior and interior gel coats complete a panel, which on the outside, resists the worst that the sea can conjure up (including exposure as deck cargo) and on the inside provides an easily cleaned, inert, hygienic surface. Ideal for cargoes as sensitive to contamination as say, butter.

Assembling containers.

The valved porthole in the rear wall of the container allows refrigerated air to be pumped in or expelled. This together with the built-in insulation, allows the containers to maintain internal refrigeration without attention for up to 48 hours. The thermal qualities can cope with an outside temperature range of between -28 degrees C to 50 degrees C. The actual thermal efficiency is 18 K/cal/hr/10 degrees C. maximum heat leak.

Isofreeze containers can also be supplied with integral refrigeration.

Purpose-built Options: Features available include intermediate decks, reinforced roofs for hanging loads (such as meat), cargo restraint features and a variety of floor decks including aluminium "T" bar, reefer type for air circulation, or flat ply floors coated in non-slip finishes. The units can also be supplied with tyne pockets, for easy movement by fork-lift trucks.

Loading frozen meat into container.

Structural testing and quality control

Isofreeze containers produced by George & Ashton have to meet demanding international quality specifications.

Testing for thermal efficiency is carried out in a special chamber. Insulated containers are tested by maintaining a high controlled temperature inside the unit and monitoring the heat leak through the walls. Containers with integral refrigeration are tested by imposing an extremely high temperature outside, as well as a secondary heat source inside the unit, to check the overload capacity of the refrigeration unit.

A sophisticated mechanical testing rig, the first built in New Zealand under the Lloyds Register freight container certification scheme is being used. Structural testing includes loading selected containers with pressures equal to nine-high stacking, racking tests representing the movement of a ship, and other tests simulating the weight of loaded fork-lift trucks, and the strains imposed by terminal container cranes. Under stress, the containers have to maintain exact dimensional tolerances.

A system of production line inspections and checks is also in operation.

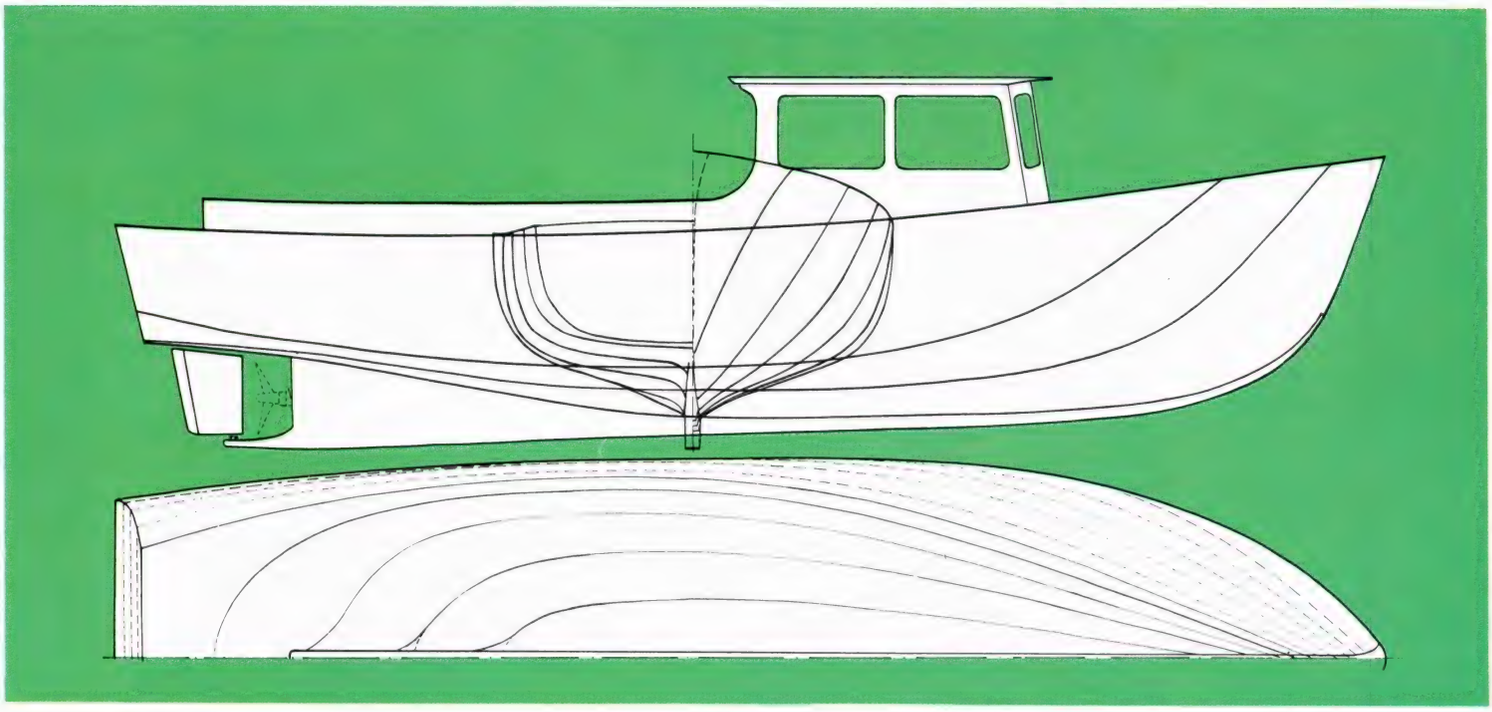
AHI Isofreeze containers

George and Ashton fabricate practically anything in fibreglass

George & Ashton Ltd. not only offer at competitive world prices their container construction and repair services. They also build fibreglass fishing trawlers and tugs, cool stores and refrigerated truck bodies.

The Karitane 29 trawler (line drawing shown below) was designed as an inshore fishing vessel, but is equally at home in river, sea or restricted waters. The shallow draught and easy underwater sections allow it to use tidal anchorages which dry out. This is an important advantage in many coastal areas throughout the world.

Other products include Sureshield flooring and fibreclene continuous wall surfacing for food processing plants, and fibreglass vats, containers, trolleys and wheeled bins. All are hygienic, corrosion resistant and easy to maintain — perfect for foodstuffs.



Worker initiative

Building fibreglass containers is a labour-intensive undertaking. George & Ashton are fortunate in that they have a skilled and adaptable labour force which also possesses initiative. Staff members are encouraged to come up with practical answers to production problems and have frequently shown great ingenuity on the factory floor. They work for a versatile company and that versatility is strongly reflected in the labour force.

see the index for address details

As a group of islands in the South Pacific, far from its main markets, New Zealand has always depended on shipping for its economic life and progress. Ships were even built here for whalers and sealers 150 years ago, long before organised settlement began.

Sims Engineering Ltd has no long tradition in this field, but in less than 20 years it has raced to the top. Since its shipyard division was established it has constructed and launched more than 60 small steel vessels — tugs, barges, fishing vessels, tourist launches and even landing craft. Its most recent major contract was a $3 million refit for an inter-island ferry, and the largest vessel launched in recent times was a 95ft 2000 h.p. Schotell propulsion tug for the Lyttelton Harbour Board.

The shipyard is at Port Chalmers, close to the container terminal. There are two slipways on which vessels of up to 160ft in length can be built. The slipways are completely covered which means that ships are constructed under factory conditions, with no interference from weather. Not only does this ensure that work is continuous but it makes for a high standard of finish. Even more important from the viewpoint of clients is that the efficient yard layout means substantial cost savings.

M.V. Marine Countess constructed by Sims Engineering

Sims mean shipping

Standard Designs Or Special Orders

Sims Shipbuilding offers a range of 19 standard designs ranging from 30ft fishing boats to 130ft coastal cargo ships. But it is not limited to this standard range. In association with Hakker Marine Design Services, Sims can supply clients with vessels to suit their special requirements. Complete design services are provided, including economic viability studies. The company also has licence rights from the internationally known naval architects Burness, Corlett and Partners, of Basingstoke, England.

Ship Repairs and Refitting

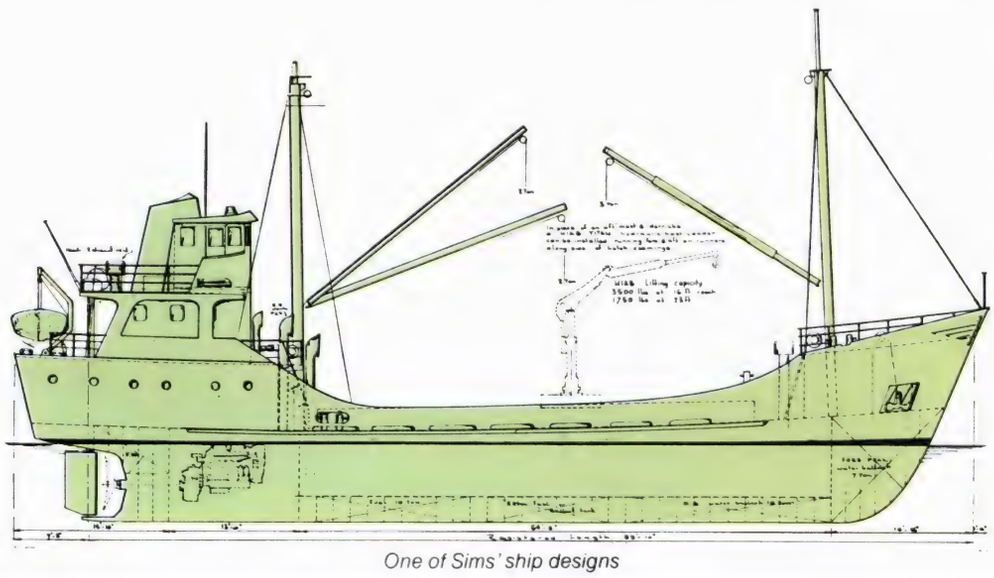
Repairs and refits are a specialty of Sims Engineering Ltd. The company are contractors to the United States Navy and to major shipping companies. Work underaken includes complete engine overhauls, renewal of stern tube bearings, re-sleeving and strengthening of tailshafts — and every other type of major overhaul. On the staff are shipwrights, electricians, diesel mechanics, painters and all other tradesmen needed for the repair and maintenance of sea-going vessels.

Above-deck fittings are manufactured to client specifications. Sims will supply stemhead roller fittings, handrails, anchor hawse pipes, masts, booms, funnels, exhaust systems, trawl gallows, bollards, deck sheave fittings and radar stands. What is more the company also manufactures and stocks a range of trawl winches, anchor winches, anchor windlass gypsies, boom and trawl lead blocks. Special winches and windlasses can be made to order.

Sims Modified No. 3 winch on board the Research Vessel "M.V. Acheron"

Manufacturers of propulsion and control machinery

Sims Engineering manufacture and supply mechanical and hydraulic PTO drives and clutches, fuel tanks, auxiliary power units, steering mechanisms, rudder assemblies for steel or wooden boats, oil or water filled stern tubes, shaft couplings and props as a unit assembly, freezer shaft units for bulkhead assembly, and gas receivers for freezer units.



One of Sims' ship designs

Two triple frequency coreless induction electric furnaces

Gillies meet world standards

Direct reading spectrometer

Large diameter gate valve

In New Zealand, Gillies Foundry and Engineering Co. Ltd is the premier name in the field of fluid control, especially in the field of large diameter gate valves for high-volume water-works systems. Gillies manufacture valves under licence to a well-known English manufacturer (meeting their high standards of casting, machining and assembly) and export to the whole of the Pacific Basin.

The casting specialists

Gillies specialise in high-quality castings (from 50 gm to 2 tonne units) in cast iron, high duty irons and S.G. (ductile) irons. Non-ferrous casting is also carried out.

The Company has full pattern-making facilities and its metal melting plant comprises two triple frequency coreless induction electric furnaces. This equipment is equal to the best in the world, with a capacity of 29 tonnes per 8-hour working shift. Quality is controlled by means of a direct reading spectrometer located adjacent to the furnace deck.

Gillies Foundry supplies many castings to Government Departments, Local Governments and the engineering industry.

Fluid control systems

Gillies have full machine shop facilities and are specialists in the production of wedge gate valves. These include water-works sluice valves from 4" (100 mm) to 24" (600 mm) diameter, together with medium short industrial valves, with rising or non-rising spindles, from 2" (50 mm) to 12" (300 mm) diameter. Also produced are reflux valves and fire hydrants.

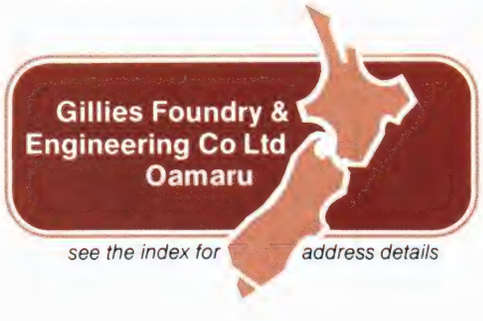
Gillies produce a complete range of cast iron fittings (Tees, Bends, Crosses, Y pipes etc) for installation with asbestos cement, cast iron steel and PVC pipes in water supply systems and other fluid applications. Catalogues will be sent on request.

Solid fuel heating appliances

Gillies Manufacturing Ltd, an associated company, are New Zealand's largest manufacturers of solid fuel slow combustion space heaters. Makes produced include "Juno", "Mackay Fulvue", "Warmrite" and "Empress". The latest model on the production line is a modern efficient cast iron woodburning space heater — the "Narvik", a Scandinavian design.

Gillies export anywhere

Gillies have the capacity to accept orders for castings, sluice and gate valves, waterworks fittings, domestic solid fuel space heaters or any other type of casting/machining operation. The company will be pleased to prepare quotations and delivery dates on receipt of details and specifications.



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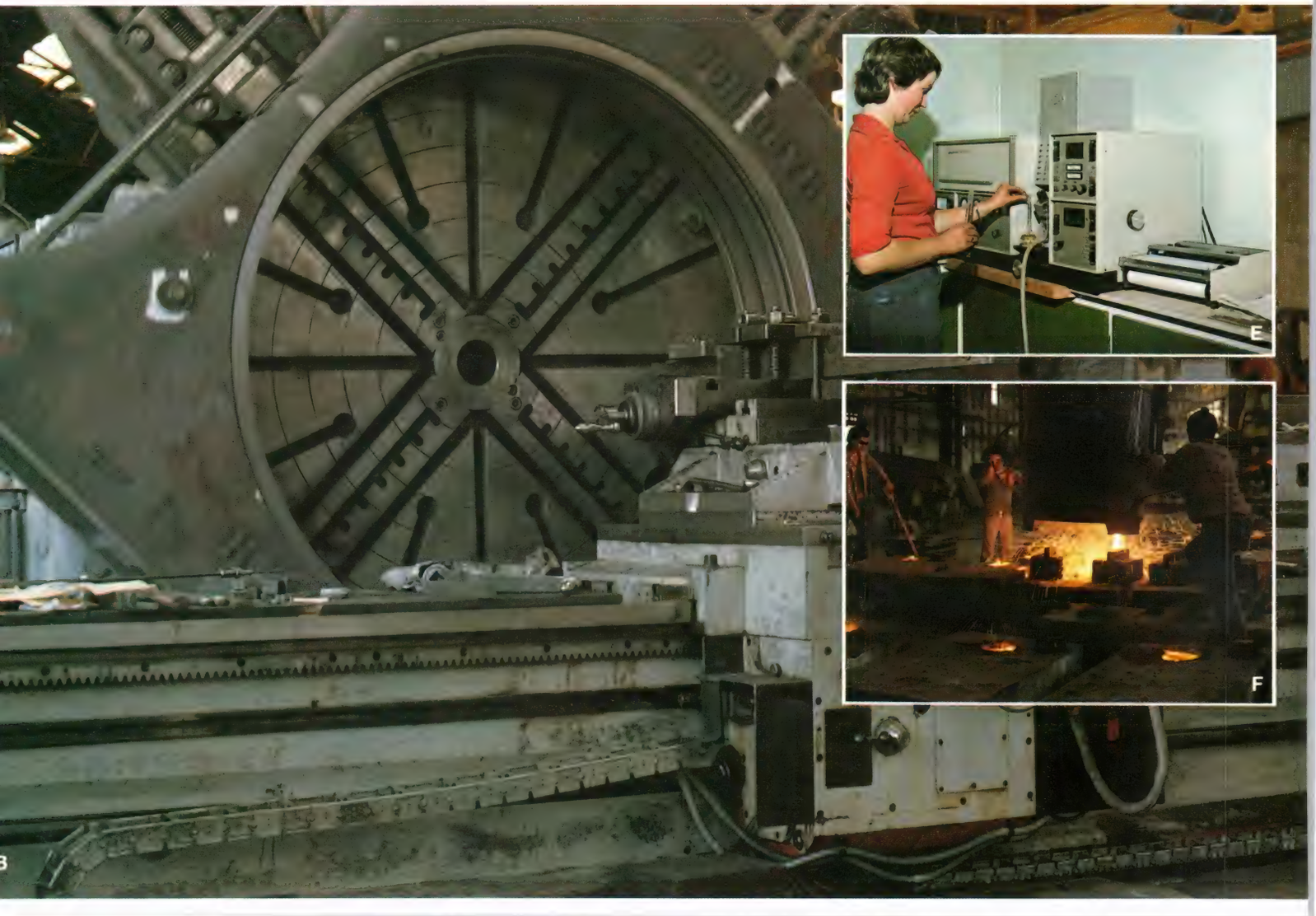

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F

The engineers engineers

There is a no-nonsense approach to business by The Dunedin Engineering and Steel Co. Ltd and Farra Bros. Ltd. The two firms merged in 1969 to become the largest and most experienced iron and steel foundry, machining and metal fabricating organisation in the south of New Zealand. Skilled engineers themselves, they deal with engineers — and know exactly what their clients need. Those clients are civil engineers, mechanical engineers and production engineers. Their requirements are precise, and to obtain them they turn to people who share their professional skills.

It is no surprise, therefore, that this Dunedin firm services a wide range of industries, from steel mills to aluminium smelters, cement works to mines and quarries, as well as fertiliser works, woollen mills, food manufacturers and the transport industry. Activities are not confined to New Zealand. To quote just three recent contracts, they provided two 70" diameter gear rings for coal crushers at A.I.S. Wollongong; four transition castings for two sea-going police patrol jet craft in Singapore; and large ore-crushing roll shells for the mines at Broken Hill.

Foundry Facts

The foundry can produce castings up to 3½ tonnes in plain carbon steel, high and low alloy steels, heat resistant, wear resistant and stainless steels, also grey iron, Ni-resist, and Ni-hard irons. The foundry has Lloyd's Register of Shipping approval for manufacture of steel castings.

Full pattern making facilities are available, and the moulding and coremaking shops employ the latest production techniques and are extensively mechanised. Four pin lift sodium silicate — CO_2 process moulding machines are used for small moulds 18" x 18" and 18" x 24". Two continuous mixers are used for large plate moulding and jobbing moulding. Shell moulding is also used for small work.

A Birlec Electric arc furnace is used for melting. This has a capacity of up to 4½ tonnes, and there is a smaller standby furnace with a nominal capacity of 750 kg. Casting operations are controlled by technicians in a fully equipped laboratory.

Heat treatments available include annealing, normalising, hardening and tempering.

Non destructive testing using Ultrasonics is available and proof machining can be arranged.

G

H

Heavy and Precision Machining

Whether engaged in manufacture or repair, close finish work on small components, or machining of extremely large and heavy ones Dunedin Engineering's machine shops can handle it.

The machine shop covers 19,000 square feet and is equipped with a wide range of modern machine tools manned by skilled operators. Space does not permit a full listing of all the machine tools and their capacities, (this information will be supplied on request), but some of the units are as follows:

Lathes: The largest can swing 102 inches over the bed, 138 inches in the gap, and can take 16 tonnes or 23 feet between centres. The largest horizontal boring and milling machine has a 108 inch cross travel, 84 inch vertical travel, and 5 inch spindle. Gear shapers can handle straight spur or helical gears from small pinions to gears 56 inches outside diameter. Planers can handle pieces up to 48 inches x 48 inches x 10 feet. CNC Lathe capacity up to 24" swing x 78" is also available.

Metal Fabrication

The steel fabrication shops cover an area of 50,000 square feet and are equipped to handle jobs of all sizes and types up to fabrications of 40 tonnes in a single piece. The major items of equipment are a 500 tonne brake press with 16 foot bed length; a 12 foot x ⅜ inch Rhodes Guillotine; an 8 foot x ¾ inch Bronx initial pinch bending roll and a B.O.C. Falcon 23 optical flame profile cutter with a 21 foot x 9 foot 6 inch cutting table.

Some of the larger units produced are cranes: Electric overhead travelling cranes, including Goliath and semi-Goliath types and the main structures of container handling cranes for the Otago, Lyttelton and Wellington container terminals in New Zealand.

A specialty of Farra Bros. is the manufacture of stainless steel equipment for the food processing and catering industries, such as chocolate kettles for confectionery manufacturers and bain maries and other equipment for hospital and institution kitchens.

One of the more sophisticated machines recently produced for a textile manufacturer is an Australian designed carpet and textile jet dyeing machine.

This highly complex device will be used to print up to six colours simultaneously on fabrics in either symmetrical or random patterns, and if the same colours are used the facility to change patterns in the course of a run thus making small production runs of as little as 400 m economical. The machine is controlled by a computer combined with a DDM (Digital Drawing Monitoring) system.

A mixing control panel is also linked to the computer and calculates the exact quantity of dyes and chemicals needed for any particular run. A single operator can control the whole machine and produce 4 metre wide carpet at the rate of 9 metres per minute. The company has also manufactured an extensive range of other machines for the textile industry.

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Photographs: (A) Submerged arc welding of Crane Drum (B) Turning Ball Mill bearing pedestal (C) Design Office (D) Tapping Electric Arc furnace (E) Atomic absorption spectrophotometer in Laboratory (F) Pouring from 5-ton ladle (G) Ultrasonic checking of gearwheels (H) Okuma C.N.C. lathe.

The household champions

Radiation (NZ) Ltd are one of New Zealand's largest manufacturers of home appliances. They have made Dunedin the home of Champions.

The manufacturing of home appliances is an important industrial activity in Dunedin. For example, two-thirds of the country's production of electric ranges is based in Dunedin, and Radiation is to the forefront in this specialist field. Their electric cookers and domestic laundry appliances are marketed under the brand name Champion - and champions they have proved to be.

Of course, Radiation has the backing of one of the large British industrial groups. The New Zealand firm is a subsidiary of Tube Investments Ltd, more commonly known throughout the world as T.I. With a capital of £250 million, T.I. is an international engineering concern producing a wide range of capital, semi-furnished and consumer goods. TI is one of the world's largest producers of precision steel tubes, the principal smelter of aluminium in the United Kingdom, the world's leading maker of bicycles, and an important manufacturer of machine tools and both gas and electric home appliances.

Champions in the kitchen

Radiation manufacture a complete line of fifteen different upright and benchtop electric cookers to specifications to suit customer requirements. These range from a simple manually-controlled model to a comparatively recent introduction, the "Black Prince" a cooker which features a digital automatic control clock, continuous self-cleaning oven, black toughened glass oven door, warmer drawer, rotisserie, deep-fry griddle — plus a black ceramic glass cooking top. Black Prince is the only free-standing cooker on the New Zealand market to offer this latter feature.

The ceramic glass cooker also comes as a drop-in surface unit — the "Smoothtop".

Champions in the laundry

Radiation manufacture single-tub spin-dry washing machines in manual and fully automatic forms. Both of them incorporate Champion's unique hot water saving system, which operates as follows: While the first load is being rinsed and spin-dried, the hot soapy water is stored and used again for the second or third washes.

The Champion manual model, the Midway should prove very popular in developing countries and rural areas.

The Champion Fully Automatic washing machine features two automatic programmes, five different temperature selections, and a three-stage rinse cycle.

Champion's substitute for sunshine

Tumble dryers are included in the Champion range of appliances. There are two models, each with the same capacity (4 kilograms dry weight of clothes) but the larger of the two is designed to be a matching unit for the Champion automatic washer. With both models, the electric timer and three temperature settings, give a choice of drying times most suitable to the type of load. A twelve minute cold air cycle helps to eliminate wrinkles and creases.

Automotive components

Specialists

in die making and fine blanking for short production runs

Fitting a fine blanking die.

Spark erosion.

D.C. Ross Limited of Dunedin provides a complete service — die making, fine blanking and, in conjunction with their associate company, Brugger Industries Limited, offers precision manufacturing of other component parts.

Our strength is our ability to produce dies economically and efficiently for low volume production runs. All classes of tools are manufactured from dies used on a run of 500 upwards. Modern and adaptable plant enables us to expedite the production of large and small tools.

Toolroom Machine Capacities:
Milling: Maximum table travel 900mm x 260.
Copy Milling 3D: 330mm x 180 x 150.
Surface Grinding: 860mm x 530 x 500 max.
Punch Shaping.
Turning: lathes 580mm swing;
500mm between centres
Spark Erosion: 85 amp. Tank size
800mm x 440.
Cylindrical Grinding: 3300mm x 1200 between centres
Planing: 1800mm x 760 x 500.
Heat Treatment: 330mm x 330 x 600. Temperature 1200°C maximum.

Fine Blanking:

On our 250 ton SCHMID fine-blanking press we can produce parts to an accuracy and rate of production difficult to obtain by other, more conventional methods.

This machine enables us to stamp or blank out parts which are cleanly sheared over the whole material thickness, including holes, which can reduce the number of operations and thereby lower production costs dramatically.

Items which are to be reamed, milled, shaved, broached or ground lend themselves to fine blanking where parts can be produced with one press stroke.

Our press has a capacity of 250 tons and will handle strip or coil up to 250mm wide. Some types of steel up to 15mm in thickness can be fine blanked.

We have an established reputation for quality and service and would welcome the opportunity to serve your needs. Quotations are provided without obligation.

D. C. Ross Ltd.
Dunedin

see the index for address details

The Christie "Suntend" glasshouse

Christies business is growing

New Zealand Steel Limited

The lean-to "Continental"

J. & T. Christie Limited are New Zealand's biggest manufacturer of glasshouses and sheds — from the versatile mini glasshouse to the luxury styling of the Cabana. Christie's wide range of products are famous for their quality, function and contemporary styling.

J. & T. Christie Limited, established in 1881, are long time experienced exporters.

The Christie product range includes such famous names as Avon, Willowbank and Burbank sheds, Argyle, Suntend, Sun King and Continental glasshouses, all household names in New Zealand and fast establishing a quality reputation in Australia, Japan, England, Pacific Islands and U.S.A with inquiries from as far away as the Gulf States.

Bringing the outdoors, indoors

Christie's many years of exporting experience is paying dividends — they are innovators with interior and exterior mobile gardens, modular shelving, metal garden stakes and edging. Christie's business is growing all around the world.

Managing Director, G.W.T. Christie at Container Port

The "Cabana" — a new concept in outdoor living

J.&T. CHRISTIE LTD

Christie "Argyle" lean-to glasshouse combined with "Regency" garden shed

Says Managing Director Bill Christie, a noted horticulturalist and author of New Zealand's best selling book on glasshouse culture: "Exports are vital to our success as a company and, indeed, to the survival of the country as a whole. Our greatest assets are the accumulated skills embodied in our employees and the quality reputation our products enjoy. The successful marketing and manufacture of our products is very much teamwork, craftsmanship and technology. We believe in quality, service and value for money."

Christie's are automated. Their initial development and tooling costs are behind them. The investment made years ago makes it possible to buy Christie quality products at very competitive prices.

The Mini glasshouse

Christie people are expert craftsmen and women, even with automated processes experience is vital. "We're manufacturers of quality" they say, "we make functional things fit for their purpose, that will give a lifetime service."

J. & T. Christie skills extend into non-ferrous founding and brass casting. Marine and plumbing fittings are speciality lines but they have capacity for new ideas as well as established products.

Whatever your company's size, style or needs, you'll find Christie people experienced and business-like to deal with. Contact them now for full details of their product range and services.

When you are faced with importing decisions contact J. & T. Christie Limited.

see the index for address details

From bare chassis to trendsetting transport

Emslies design and build buses to suit road conditions and passenger requirements anywhere in the world.

Dashboard in ABS thermo-formed plastic

The New Zealand Railways are in the road transport business in a big way. They use buses — lots of them — for both short-distance commuter services, and as long-distance tourist coaches. Recently buses of an exciting new design, which are a radical departure from Railways tradition have been appearing on New Zealand roads. These buses have been designed and built by Emslie Consolidated Industries Dunedin.

Variety of materials

A feature of these Emslie-designed buses is the wide variety of materials used in their construction. Each of them are used where their special characteristics are most suitable, i.e. steel for structural strength, fibreglass for non load-bearing moulded sections and so on.

Steel is used for the structural framework, which comprise hollow box sections incorporating full length stressed panels from window height to floor level. Fibreglass is used for the front and rear moulded panels, and also for the side and rear luggage compartment, the wheel housings and the entrance stepwell. Aluminium is used for the exterior panels and polished alloy for the extruded wheel arch trims. Alloy is also used for the full-length cantrail which incorporates the drip moulding. Stainless Steel (with black inserts) is used for the exterior trim. ABS plastic has been used extensively on the interior because of its strength, lightness and range of patterned finishes. The ceiling, window finishes, dashboard and rear bulkhead are all thermo-formed ABS. Carpet is used not only on the floor but is also carried up the side walls.

Digital Clock

Pressurised luggage compartment

Special design features for N.Z. road conditions

Many New Zealand back-country roads, especially in some tourist areas have very dusty gravel surfaces. In order to overcome this problem, Emslie designers included an air scoop which directs an air flow over the rear window to keep it clear. Also, all luggage compartments are pressurised. (The passenger area is of course pressurised and air-conditioned).

Passenger comfort

Seating room within the coaches is generous, complemented by overhead airline-type clusters of individual air-conditioning controls, courtesy light and call buttons. The large windows allow maximum visibility.

Geared for export

Emslie Consolidated Industries are geared to export buses anywhere in the world, built on any chassis and individually designed and purpose-built to suit road conditions and passenger requirements.

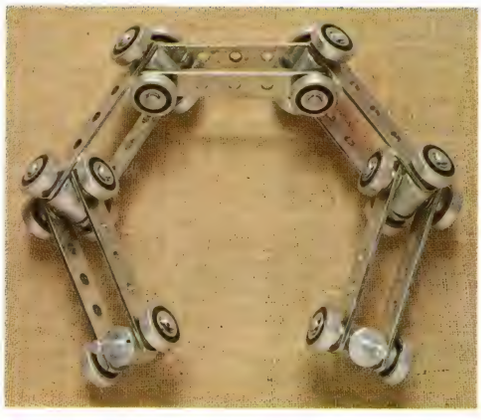
see the index for address details

Millers make things move

One important difference between Miller's Mechanical and their competitors is a flair for invention. They are experts at designing, adapting and improvising. If standard equipment does not suit the needs of the client, Miller's turn to the drawing board and unfailingly come up with a solution.

They specialise in moving things — straight along, up, down, sideways, round corners. No matter how complex a conveyor system has to be to suit a particular production line, Miller's can find the answer. Indeed, they probably know the answer already, so wide has been their experience in this highly specialised field.

One of their major activities is producing equipment for meat handling. Major freezing works and abattoirs throughout New Zealand use Miller's equipment and skill, and now inquiries are coming in from Australia, North America, South America and Britain. When a company has a reputation for ingenuity, word soon gets around!



Some of the excellent meat handling systems the firm can offer include:

Carcass Queuing: fixed spacing, variable spacing, self-sorting.

Carcass Conveyors: selecting, bleeding, detain and retention; fixed spreading, dressing, marshalling, fixed pin, walking beam.

Belt, Screw and Roller Conveyors: cartons, carcasses, offal etc.

Specialist Equipment: head splitters, scalp pullers, elevating platforms, automated carcass marshalling, automated blast freezing.

3D Veyor Bi Planer Conveyor Systems: incorporating specialist attachments which offer greater flexibility.

Come to think of it, that word "flexibility" is the key to Miller's success. Not only can they design meat handling systems to suit any situation, but they can instal these systems with a touch of flair. And the quality of their workmanship is excellent.

No matter where the customer is situated, no matter how complex his problem, Miller's can handle it, from design to manufacture, from installation to regular maintenance.

Millers Mechanical Equipment NZ Ltd., Dunedin

see the index for address details

A shell and tube heat recovery exchanger and associated trash cyclone under construction.

Factory showing fans etc., under construction. At middle right are two "Celmar" helicopter spreader hoppers.

Cleaning up tomorrows world today

New technology for air pollution control and for energy conservation is vital for tomorrow's world. H. E. Gardner & Sons Ltd design and manufacture systems which meet this pressing need.

Air pollution control

By skilful use of heat transfer systems, especially in conjunction with energy saving devices, Gardner's can cut running costs of pollution control to an absolute minimum. The company's skilled engineers design individual systems to suit individual industry problems, from dealing with the finest industrial dust and aerosols to large waste particles and noxious organic odours.

Energy conservation

Worldwide attention is being paid to energy control, which has become the catchphrase of today's industrial planning. The oil crisis shocked everyone into awareness, and now conserving energy has become part and parcel of our domestic and industrial life. To meet this challenge Gardner's are designing and manufacturing systems which are so efficient that, within one year, savings on fuel have met capital and installation costs.

Heating and drying systems

Otago concerns have been quick to appreciate the Gardner range of timber drying kilns — and so have customers overseas. These kilns have proved to be one of the most successful exports handled by the company. Standard sizes range from 6000 board feet to 30,000 board feet per charge, but larger units are made to order. They can handle any type of timber with no fire risk and no product contamination, at very low cost. Also available is a forced-air atmospheric dryer designed to meet Australian CSIRO specifications.

Gardner's oil-fired industrial heaters provide an efficiency level of more than 80% of the net heating value of the fuel. Highly efficient and approved by insurance authorities, they can be installed in any position with output of 100,000 B.TU/hr upwards.

Gardner's also provide a full range of equipment for industrial painting: spray booths, a paint shop system supplying warm filtered air to the painting area for maximum quality, and paint drying ovens, oil-fired or electrically heated, in any size. They are also very experienced at building booths and recovery plant for electrostatic powder spraying and the associated baking ovens.

Vats, tanks, hoppers of all types

Gardners supply purpose-built containers for all types of corrosive and non-corrosive liquids and granular solids. Many of these are constructed from "Celmar". "Celmar" (RTM British Celanese Ltd.) is a polypropylene material which is completely inert to all chemicals and is superior to metal in many applications, for example hot water tanks. Hot chlorinated water will crack most stainless steels but has no effect on "Celmar". Other applications are vats and tanks for electro-plating and metal-pickling solutions.

Gardners are also experienced in fabrications in "Teflon" and other high-temperature plastics.

Other products

Other H. E. Gardner products include liquid heating systems, axial and centrifugal low and high pressure fans, and swimming pool heaters.

H. E. Gardner Ltd. are rightly known for their high quality systems and their attention to each customer's individual needs. They can offer a solution to the most complex problems, with a system designed to meet the most exacting needs at the lowest cost.

H. E. Gardner & Sons Ltd., Dunedin

see the index for address details

Stephens Art materials were used in the production of this publication.

Stephens make their mark

Back in the days of inkwells, steel nibs and blotting paper the name of Stephens was known in every school and office in the country. Today Stephens are even more widely known, not so much for high quality ink as for a dazzling range of modern products which may be found overseas as well as in New Zealand.

From makers of ink, Stephens have diversified into strong manufacturers and marketers of a wide range of alternative pens and markers, and also into adhesives. They even make the bright barrels of their own marker pens and the printed plastic containers for adhesives. In short, Stephens are right up with the latest technology. They research their markets and they come up with products tailored to modern needs.

As part of the world wide Dickinson Robinson Group Limited, Stephens, DRG Plastics (formed as a service company to the main operation) and Blick (the marketing section of the business) are able to draw on the expertise and experience of DRG. With their overseas connections and their unequalled knowledge of New Zealand and Australian markets, Stephens are going from strength to strength.

DRG
Stephens
A Dickinson Robinson Group Company

No longer are their products designed for schools and offices alone. Supermarkets and department stores use marking pens with acrylic fibre tips for price tickets and displays, commercial artists would be lost without their studio pens, farmers make use of pens for cattle tags: the range and scope and usage just keep growing.

The individual types of pen are designed specificially for a variety of users. The Studio Magic Marker, in 60 different colours, is for artists and advertising agencies. Painting Stiks (24 colours) are extremely popular with children. Vivid Markers (eight colours) are keenly sought for many home and commercial uses. All told, Stephens put out marking pens in 10 different sizes.

They make chalk, too, for the black and green boards of schools and universities, but have anticipated the move towards white boards by producing an instant drying marker which wipes off with dry tissues.

Mister McGloo and Paston adhesives, manufactured in Dunedin from synthesised petroleum products, are finding a ready market in Australia, where Radiant and Mini Marker pens have also been sold to the Australian Government.

Stephens adhesives, markers and painting sticks

Stephens supply vibrant colours, and their whole operation is vibrant too. They serve New Zealand well and look to their export future with confidence.

The stationery that keeps business moving

EDP unit using Wickliffe Press Ltd fan-fold stationery

Wickliffe Press Ltd run a specialised printing business which not only meets local requirements but serves the South Pacific with computer stationery and business forms. The Company is able to export successfully by following a simple business maxim: always supply the best at a competitive price.

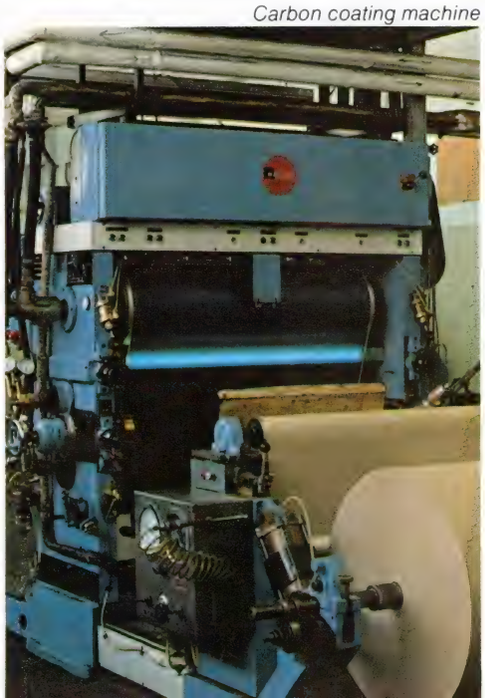
The Wickliffe reputation was made on the New Zealand market but is now spreading further afield. Their quality and efficiency have brought them such clients as the New Zealand Government, Databank, the New Zealand Motor Corporation, Mosgiel Ltd, Andrews and Beaven Ltd and Motor Specialties Ltd. To this list will be added satisfied clients overseas.

The secret of success is efficiency, which is maximised by having all ancillary product services under one roof. Modern high-speed

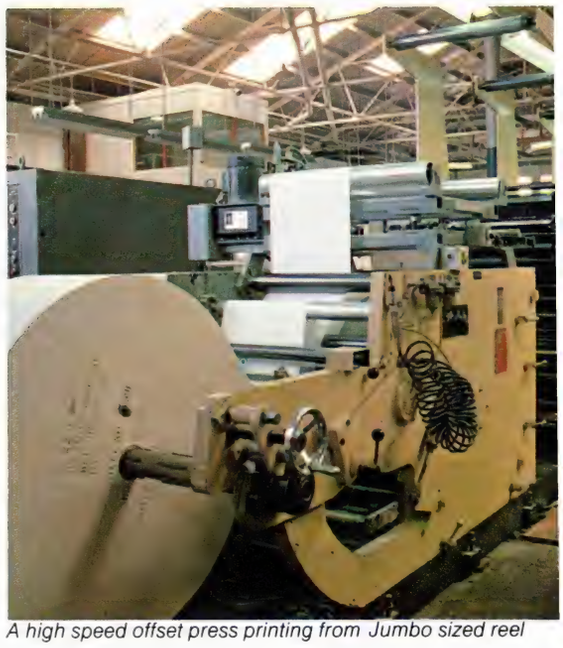
Business Form Machines

Automatic Step and Repeat machine for plates

Carbon coating machine



Selection of stationery printed by Wickliffe Press Ltd.



A high speed offset press printing from Jumbo sized reel

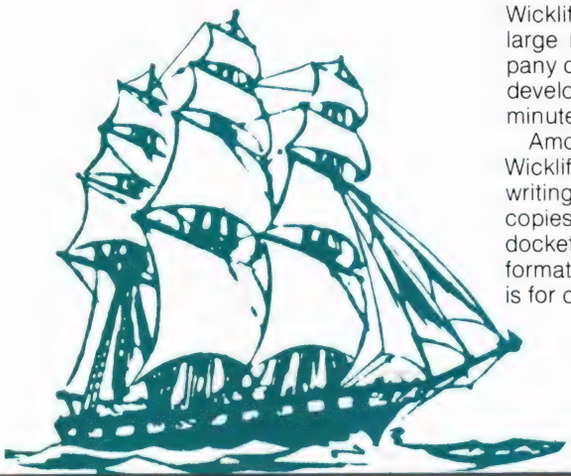
perforated, numbered, punched or bound, Wickliffe has the capacity and the skill to meet demand.

For those who specialise in EDP, Wickliffe produces continuous fan-fold stationery for computer print-outs of any type, financial statements, analyses, stock records, invoices, statements of accounts, continuous cheques and optical character or optical mark reader forms.

The printing of standard forms can be attended to by many printers, but Wickliffe Press Ltd enjoys the challenge of specialist work. Its origination department can help design forms necessary for any business system and prepare and produce the plates ready for the printer. Highly sophisticated machinery include rotary presses in 17, 22 and 24-inch web depths, carbon coating machines and automatic collators. And the whole operation is in the hands of skilled personnel who have the knowledge and the confidence to use their machines to execute orders of any size and any degree of complexity.

printing machinery and proven work-flow techniques mean prompt delivery — the essence of all printing success. And, to keep abreast of international developments, Wickliffe Press Ltd has an association with the large multi-national Standard Register Company of the United States whose research and development laboratories provide up-to-the-minute technical information.

Among the requirements being met by Wickliffe are printed forms for hand or typewriting with duplicate, triplicate or further copies (for instance, order forms, delivery dockets or airline tickets), all products in the format required by the client. Whether the order is for one-time carbon snapsets, or NCR sets,



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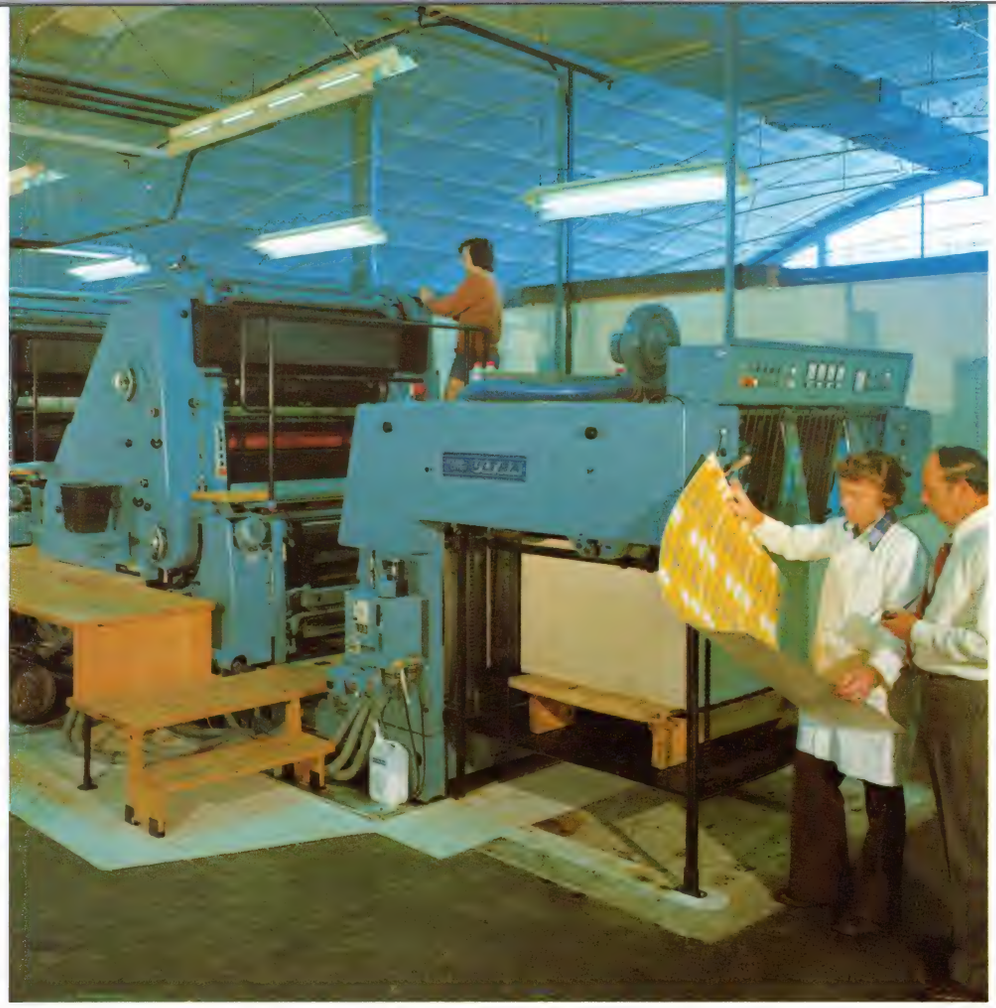


A complete package

Whitcoulls provide a complete printing and packaging service including platemaking, binding etc.

Whitcoulls offers the discerning print and packaging buying executive the widest possible range of quality printing and packaging products, encompassing flexible packaging, cartons of every type and style, box and container packaging, multicolour labels, catalogues, brochures, publications, etc, cheque printing and encoding, continuous business forms, manufactured stationery and hard covered books. This wide range is supported in depth with art and packaging design facilities as well as fully equipped typesetting, film originating and platemaking installations.

Their own exports of educational books, commercial publications and other printed products are only part of this powerful firm's contribution to the export drive. Modern lithographic printing presses support other exporters with colourful promotional material and quality packaging.

Colour proofing for checking of final product make-up, and pre printing submission to clients.

Highly skilled art preparation for all aspects of printing and customer design services.

Many of the companies represented in this book, as well as many more from other parts of New Zealand, pack their products in a wide range of custom-made, quality-printed containers, from flexible packages for underwear to cardboard cartons for meat and fish. The flexographic process provides printed and plain cellulose film, polyethylene and other plastic film, bags and pouches, printed waxed wrapping papers and form and fill packaging from all types of laminates and single web materials.

A top Australian travel agency uses Whitcoulls brochures for worldwide distribution;

The latest in photo typesetting equipment

deal

design, typesetting

Pacific islands schools use Whitcoulls textbooks; engineers round the Pacific use plan print machines, printed tracing sheets, technical pens, diaries and a host of other item from Whitcoulls.

In short, Whitcoulls products can be found today in Britain and Australia and throughout the Pacific Basin including Fiji, the Cook Islands, Papua New Guinea, New Hebrides, American and Western Samoa. Some of these products are pictured above. Manufacturers who pack their export products in Whitcoulls packaging sometimes use specially designed containers for air transport which make return journeys either with back loading or returned flat for further export consignments.

Whitcoulls is a name to conjure with — and a firm to turn to when imaginative design is wanted as well as printing skills and packaging ingenuity.

To have served New Zealand for more than 100 years is a matter for quiet pride. To be serving New Zealand exporters round the globe is a matter for real satisfaction.

For flexible packaging printed in up to six colours, on waxed paper or plain, polyethylene or any other film; for cartons and containers; for general printing of the highest quality; for manufactured stationery and books . . . the purchasing executive can turn with confidence to Whitcoulls Ltd.

Whitcoulls
LIMITED

Whitcoulls Ltd.

see the index for address details

Making paper work

When Williamson Jeffery Ltd set up a little wholesale stationery business in Dunedin 56 years ago they had a turnover in the first year of $24,000. Today it has developed into a dynamic group with a turnover approaching $20 millions.

Expansion, diversification and the purchase of companies in allied fields have not changed the basic aim of the group, which is to serve the graphic art industry. But Williamson Jeffery products are to be found in schools, offices, homes and printing works all over the country.

Paper ruling machine

Part of the huge "Warwick" range of personal, school and commercial stationery

Paper is still the indispensable medium of communication and record keeping, and paper is what Williamson Jeffery supply in a wide variety of forms, from account books to school exercise books, system cards to receipt books, manifold books to photograph albums.

In the printing works

The group name is familiar in every printing works in New Zealand — though commonly abbreviated to "Wiljefs". Not only do Wiljefs serve as one of the largest suppliers of New Zealand paper from Forest Products Ltd but they are agents for famous overseas mills such as Bowaters of Britain, Champion of the United States and Shoko of Japan. Their links with the printing trade does not end there. They are suppliers of Polar guillotines, MAN presses, Rotaprint offset machines and other lines.

In the office

A look through any New Zealand commercial office will bring to light evidence of the pervasive nature of Williamson Jeffery's business. The letterhead and account forms, the carbon paper and the filing system, even the ribbons in the typewriters are likely to have been supplied by the Group. The account books, the pens and the envelopes could have a Wiljef origin. And, if an executive conference is held, the plastic name tag, the agenda and conference notes in their plasticised cover with spiral binding may well have come from one of the subsidiary companies.

In school

The brand name Warwick has long been familiar in schools. More than 80 types of lecture pads, exercise books, journal covers, looseleaf binders, music books and ruled paper are supplied. Even materials used for finger painting or puppet making come from Wiljefs who are agents for the famous art supplier, Rowney of England.

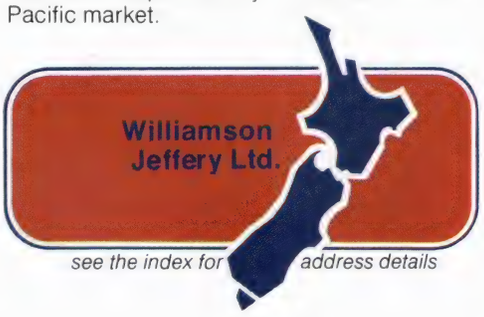
In the home

Warwick recipe books, stamp albums and photo albums, scribbling pads and notepaper — these are some of the items to be found in a vast number of New Zealand homes.

Williamson Jeffery have made their name on quality and service. Theirs is a success story in the past. They look for greater successes, even further afield, in the future.

Exports

Wiljef products are sold in many export markets and particularly in Australia and the Pacific market.



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Hallensteins modern 35 station work transporter

The first manufacturer now the largest specialist retailer

Hallensteins modern Christchurch shop

Hallensteins on-line computer, linking 53 branches

An Active Sportswear department

The Otago Province is one of New Zealand's most important textile manufacturing areas. It is not surprising therefore that the country's first clothing manufacturer — Hallensteins — was founded in Dunedin, the commercial centre of Otago.

The manufacturing activity was begun in 1873 to help offset the infrequent supplies and high prices of imported clothing into the country. But as a result of local retailer resistance, Hallensteins opened its own retail outlet in 1876 and this move was the start of a massive expansion of the company into retailing.

While still based in Dunedin, Hallensteins is now New Zealand's largest specialist retailer of men's and boyswear. The company owns and operates 53 retail outlets throughout the country. While the major activity of the company is still firmly fixed in the retail industry, it retains a substantial manufacturing operation in Dunedin City.

There is no doubt that the early experience in manufacturing from both imported and locally made cloth and the breadth of contact the company had to maintain with other leading manufacturers of both finished garments and cloth has benefited the company's retailing operations and aided its growth and success.

The depth of experience and the commercial know-how within the Otago textile industry has enabled Hallensteins to carve a unique place for itself in the New Zealand retailing scene.

The sheer size and purchasing power of the Hallensteins chain enables it to demand and maintain the high quality of its merchandise and bring it to the New Zealand public at prices to suit the needs of the "middle of the road" purchaser, the customer who wants good quality at a price he can afford.

Hallensteins however is not only a successful retailer, it is a leader and some of the trends noticeable in the retailing of leisure and active sportswear were originated by the company.

Dunedin remains part of the fabric of the New Zealand textile industry and it is this deep connection with the industry as well as the development of modern methods of management and computer technologies, high quality merchandise at a "value for money" price and a wide range of attractive customer services which enable Hallensteins to compete successfully nationwide.

With a turnover exceeding $23 million and record profits being earned for its shareholders, Hallensteins has already started its second century with confidence.

Hallensteins

see the index for address details

Continental Quilt Cover in modern room setting.

Fairydown

As individual as you are

Individuality is cherished. It is recognised internationally as a vital factor in developing people, nations and standards.

The need for individuality is paramount. Arthur Ellis & Co. Ltd. manufacture Fairydown mattresses and Continental Quilts, matching Quilt covers, pillow cases and valances that enable each of us to express ourselves in probably our most individual sanctum–our bedroom

The unifying factor for Fairydown products is quality. From this base Fairydown expand into a range of styles, colours and combinations that introduce a new dimension into your bedroom. With Fairydown you project your personality.

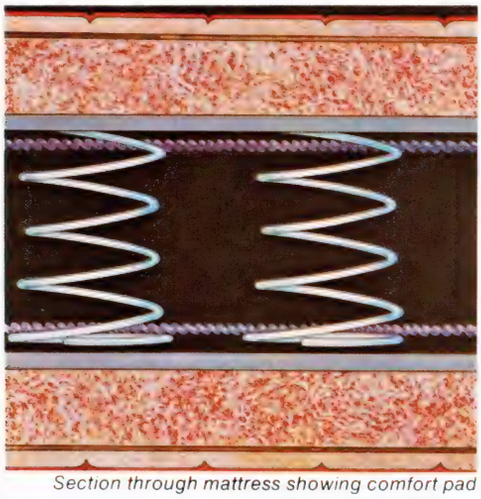
Promoting healthy sleep

Sleep under a Fairydown continental quilt and you will enjoy the luxury and snugness of down — you will enjoy the warmth without inhibiting weight. Daily bedmaking is minimised and it's not a major domestic chore to "air" the beds — there is a freshness you will enjoy, every night. Fairydown continental quilts have the added advantage of promoting healthy sleep.

A Fairydown continental quilt is a large fluffy blanket which slips into a Continental quilt cover. Simply change the cover and you change the decor of your bedroom.

Fairydown continental quilts are down-filled.

Dorma Continental Quilt with matching drapes



Section through mattress showing comfort pad

Why down? Because it is unbelievably snug and warm. One quilt has the warmth of four ordinary blankets and no greater weight than one. Another advantage is that in Summer the down may be shaken to the bottom for a cooler covering.

How to make a bed with a Continental Quilt? First, put on a fitted, coloured bottom sheet. Second, hold your Fairydown quilt upright and give it a shake to fluff up the down. Third, fit the Continental Quilt Cover over it in much the same way as you would put a pillow case over a pillow. Fourth, hold the Continental Quilt and Cover at both corners and shake down the cover, then throw the quilt across the bed and it's made.

Arthur Ellis recognised and have met an obligation to produce quality bedding that will provide for peace of mind and body. They introduced the range of Fairydown mattresses. Technical expertise, of course, is not just the ability to produce a mattress — it's the ability to produce a mattress that meets exacting health and comfort standards that can be maintained year after year. When these standards become the judgment — Mayfair is the only answer.

Dedication to detail is a major factor in the Fairydown success story. Construction must be examined in order to appreciate the quality and craftsmanship that makes a Mayfair mattress.

Beneath the stylish surface of quality Belgian ticking is a 6.3 mm layer of foam bonded to a layer of Dacron* Hollofil which in turn is bonded to a layer of 38 mm foam. This is an exclusive feature that makes the Mayfair so outstanding.

The weight of a body compresses normal foam to the point where resilience is reduced, but Dacron* Hollofil has the remarkable characteristic of extending that point of compression far longer and thus maintaining the resilience.

Between the top surface and the springs, the "Mayfair" has another feature — the Comfort Pad. This is made of special resin saturated fibres and has the effect of absorbing and spreading weight evenly over the entire bed. As a result the springs in the middle don't sag or cause bumps, comfort is increased and life of the mattress is greatly extended.

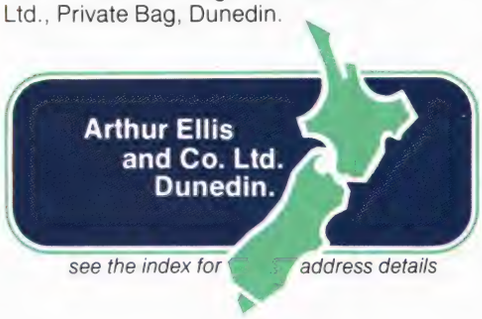
At the heart of the mattress is the famous Fairydown inner spring unit. This is made from electrically tempered steel coil springs fastened top and bottom by other special springs.

The "Mayfair" mattress is made in four sizes . . . King, Queen, Double and Single. An optional extra is the Fairydown thermo-unit. This is an electrical heating pad which provides gentle, even warmth from within the mattress.

In addition to their standard range, Arthur Ellis & Co. Limited make mattresses to specification for hotels, motels, hospitals, and other institutions.

*Du Pont's regd. trade name.

For further information on these products, write for free catalogue to Arthur Ellis & Co. Ltd., Private Bag, Dunedin.



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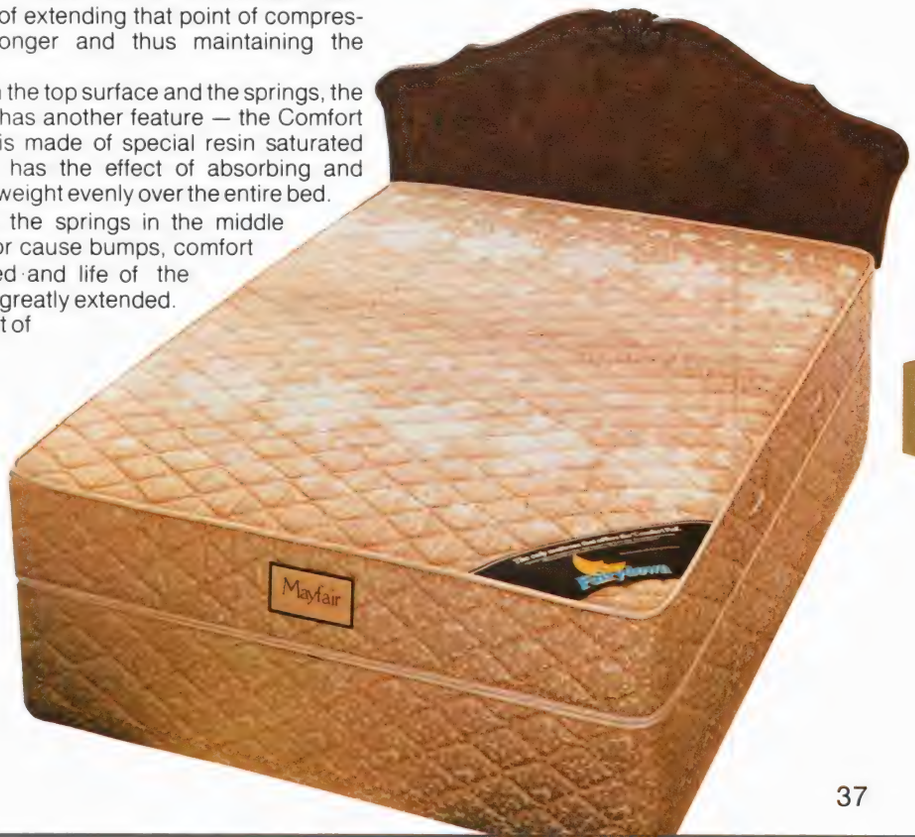


Fairydown made it to the top

(1) (2) (3)

In May, 1953, Fairydown sleeping bags participated in the ultimate in mountaineering achievement — the first conquest of the world's highest mountain, Mt. Everest.

At Camp 9, located at 28,000 ft, the night before the final stage of the ascent, Sir Edmund Hillary and Tensing Norkay enjoyed the safety and comparative comfort of Fairydown sleeping bags.

Credentials established by Fairydown on Mt. Everest, in the Arctic and Antarctic, and among the world's most rugged and demanding mountain ranges, have made them the acknowledged international yardstick, by which all sleeping bags are measured.

Evidence of Fairydown's superior quality and construction abounds. "Everest" and "Everest Mummy" sleeping bags have been used by British, Canadian, Australian and New Zealand expeditions.

Fairydown sleeping bags have been standard equipment for 32 expeditions.

When climbers go up in the mountains they need down — down in their sleeping bags. Here's why — down is light in weight and is the lightest practical insulating material known to man — 50% more efficient (by weight) than the best substitute. Another desirable factor with down is its breathability.

Down is also fantastically compressible. A down bag that has 18cm total loft can be crammed into a much smaller stuff bag than a synthetic filled bag. Down is resilient — it will spring to its original thickness after being compressed and keep on doing so. Other insulation materials fatigue more quickly and lose their original thickness sooner.

Bags illustrated:

Everest Mummy — (1) Ripstop nylon inner and outer. Built-in hood with draw cord and toggle. Shaped to the body. Box wall construction with Chevron cells. Downfilled flap covering zip on the inside to prevent heat loss. Green outer, orange inner.

Everest (2) Ripstop nylon inner and outer Box wall construction with Chevron compartments. Draw cord and toggle at neck. Downfilled flap covering zip on the inside to reduce heat loss. Blue outer and inner.

Twenty below (3) Ripstop nylon inner and outer. Box wall construction. Downfilled flap covering zip on the inside to prevent heat loss. Medium brown outer, light brown inner.

A free book: "Open Spaces", which gives detail on the full sleeping bag range, and other Fairydown recreational equipment, is available from Arthur Ellis & Co. Ltd., Private Bag, Dunedin, New Zealand.

Fairydown

Duralay in the office

You will find Duralay saturated needled nylon carpet in schools, shops, industrial premises, hotels, restaurants and universities.

What better credentials can a floorcovering product have? We have also found people using Duralay in boats, caravans and aircraft as well as domestic situations.

Duralay is a completely new formula non-woven carpeting with a 100% nylon surface on a specially processed tough woollen base. The two are bonded together by a special chemical that reinforces the base and strengthens the surface.

1. Duralay is ideal for any hard floor surface and can be laid direct on concrete. It is ideal for high density traffic and provides multiple advantages in contract situations.
2. Duralay has sound absorbing properties which reduce floor traffic sounds by two thirds — an important consideration where noise control is of paramount importance.
3. Duralay minimises maintenance costs and needs only regular vacuum cleaning and occasional shampooing. Stains can be removed with a neutral detergent and warm water.
4. Duralay needs no edge binding or stitching and can be cut in any direction — Duralay is fixed by adhesive and easy to lay. Duralay is available in a range of fashionable and functional colours.

Peel'n'Stick concept with carpet tiles is popular

Buy Fairydown Peel'n'Stick Carpet Tiles, add a little of yourself and the end result will be a perfect floorcovering, designed by you, and laid by you.

Fairydown carpet tiles add that do-it-yourself excitement and satisfaction that is associated with a major transformation in a bedroom, kitchen, playroom, den or bathroom.

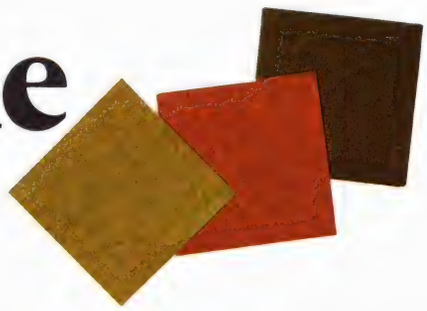
You can combine colours, utilise checks, include bold stripes or revert to the attractive plains in any of the nine fashionable and functional Fairydown Carpet Tile colours.

Fairydown Carpet Tiles are made from long lasting polypropylene which stands up to hard punishment while still retaining its appearance and soft comfortable surface.

They are simple to lay. Just peel the backing off and place in position. Simple, easy to lay instructions are on every pack. Individual Tiles can be lifted and replaced quickly and easily.

Durable, versatile floorcoverings

for commercial and domestic use



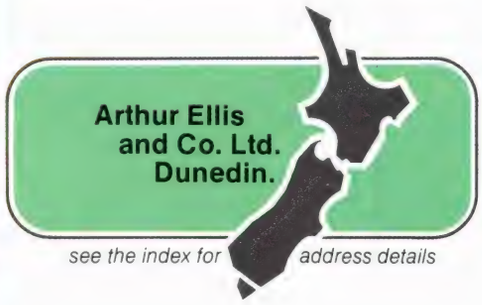
Arthur Ellis & Co. Ltd. produce floor coverings for the commercial and domestic markets. Duralay for commercial applications and Fairydown Peel'n'Stick Carpet Tiles for domestic use with emphasis on the lay-it-yourself home handyman.

Duralay is a tough proposition

Duralay will meet the most demanding commercial floorcovering requirements — and it's inexpensive.

Couple the initial capital outlay with Duralay's durability and long service and you will find it's an attractive commercial floorcovering that cannot be matched on price, quality or appearance.

Fairydown Carpet tiles



see the index for address details

Create your own knitwear brand

Contacting Tamahine is the first step to creating your own knitwear brand. You can put your name on New Zealand's finest woollen knitwear

Consider Tamahine an extension of your business — A very valuable extension that will produce top quality fashion or standard functional knitwear under your own brand name.

While Tamahine keep in constant touch with international trends by travelling overseas and retaining the services of an internationally known, London based, fashion consultant they also want their clients to participate in design/fashion decisions. Tamahine believe that distributors and retailers know their customers and customer requirements, and there is no substitute for vital information that they can contribute in making an informed evaluation.

It is not part of this Company's marketing policy to establish a "brand image" of its own in the minds of consumers. Tamahine Knitting Co. Ltd., Dunedin are contract knitters specialising in womens and teenagers fashion knitwear — from casual gear to evening wear. These are produced as "house brands" for major distributors and retailers within New Zealand and around the world. Tamahine do not design and market a range of standard styles. Styling policy is a result of close consultation between customers' representatives and Company designers to suit customers' own individual market requirements. Tamahine regard themselves as an extension of the retailer — the retailers' own production unit, even though the shop may be thousands of miles away on the other side of the world.

The success of this policy is demonstrated by the fact that a few years after the establishment of the Company, a new factory was erected with five times the capacity of the previous one, and plans are afoot to increase this even further. The factory is equipped with modern, sophisticated, high-speed knitting machines and has full facilities for pattern design, cutting, make-up, pressing and despatch.

Electronic knitting plant

Precision cutting

Tamahine — the personification of the company spirit

Tamahine (Maori for "the daughter of the Mother" pronounced Tah-mah-hee-nay) was originally chosen for the Company name because of its femininity and uniquely New Zealand associations, and because of its appropriateness for a manufacturer of women's and girls' fashion knitted garments.

Recently an original painting of a Maori maiden, personifying the Company name, was commissioned from a well-known Dunedin artist, Maurice Buckland, by the workers of the Company, and presented by them to Tamahine Directors, in recognition and appreciation of their efforts on the workers' behalf. This remarkable gesture (possibly unique in the history of labour/management relations) is a striking indication of the team spirit that prevails within the Company.

Exterior of Factory and offices

Quality control

Katie Cullen

Staff relations are regarded as extremely important by the Directors of Tamahine, because it has been found that attention paid to workers' needs result in high morale and higher productivity. The factory is fully air-conditioned and working conditions are excellent.

Communication between management and workers is no problem because the Directors are to be found, more often than not, in their shirtsleeves on the factory floor — not isolated in their offices.

Fashion is International, and Tamahine has to be part of the international scene. Information on trend-setting fashions is supplied to them continuously from one of the world's leading fashion centres — London. Ms Katie Cullen of London, is Tamahine's international design consultant. She is an independent designer with an international clientele.

News on styling comes to the Company from other sources as well and as a result the Tamahine design team are well informed on trends of the moment, and are capable of translating these trends into customers' own requirements. Personal contact is another aspect of information. Tamahine Directors regularly visit their customers around the world, adding to their up-to-date knowledge of world trends and market conditions.

Otago produces some of the world's finest woollen garments and other wool products. Dunedin Otago, was a pioneer of the woollen industry in New Zealand (as it was in many other fields) and "The Valley" in Dunedin is regarded as the Bradford of New Zealand. For more than one hundred years, craftsmen have come from around the globe to add to our knitting and woollen heritage. Tamahine are proud to be part of this heritage, and proud to have their factory and their roots in this area.

PURE VIRGIN WOOL ®

Pure, natural wool is the world's premium clothing fabric — its qualities of comfort, crease resistance and texture have never been surpassed by any synthetic fabric, and Tamahine is proud that it produces "Woolmark" quality — that is made from 100% pure virgin wool from the huge sheep flocks of Otago.

Tamahine Knitting Co. Ltd., Dunedin

see the index for address details

Worsted and Woollen industrial and hand knitting yarns

Fontana Blankets

Meet Alliance Textiles

a world-wide supplier of carpet yarns, now expanding its exports of finished woollen textiles.

Alliance Textiles Ltd — a name already well known in many parts of the world for high quality carpet yarns — is gaining a reputation for a wide range of textile products. Swanndri bush shirts and jackets, Rembrandt suits, Levana jersey knit fabrics, blankets, furnishing fabrics, worsted and woollen fabrics and Fontana knitting yarns make up the range of fine woollen goods which New Zealanders have associated with high quality for many generations. These brand names are now gaining worldwide recognition.

The modern mills at Oamaru and Milton provide the vast quantities of carpet yarn which find their way to the company's old established customers in Australia, the Philippines, Hong Kong, Thailand, Malaysia, Singapore and Indonesia.

Alliance's export achievements in this field received official recognition in 1977 when the New Zealand Government granted the Company an Export Award. On this solid foundation Alliance is now building markets in North America, Japan and Australia for all its products, bringing a distinctive New Zealand flavour to the world.

All wool Swanndri Jackets — one of many styles

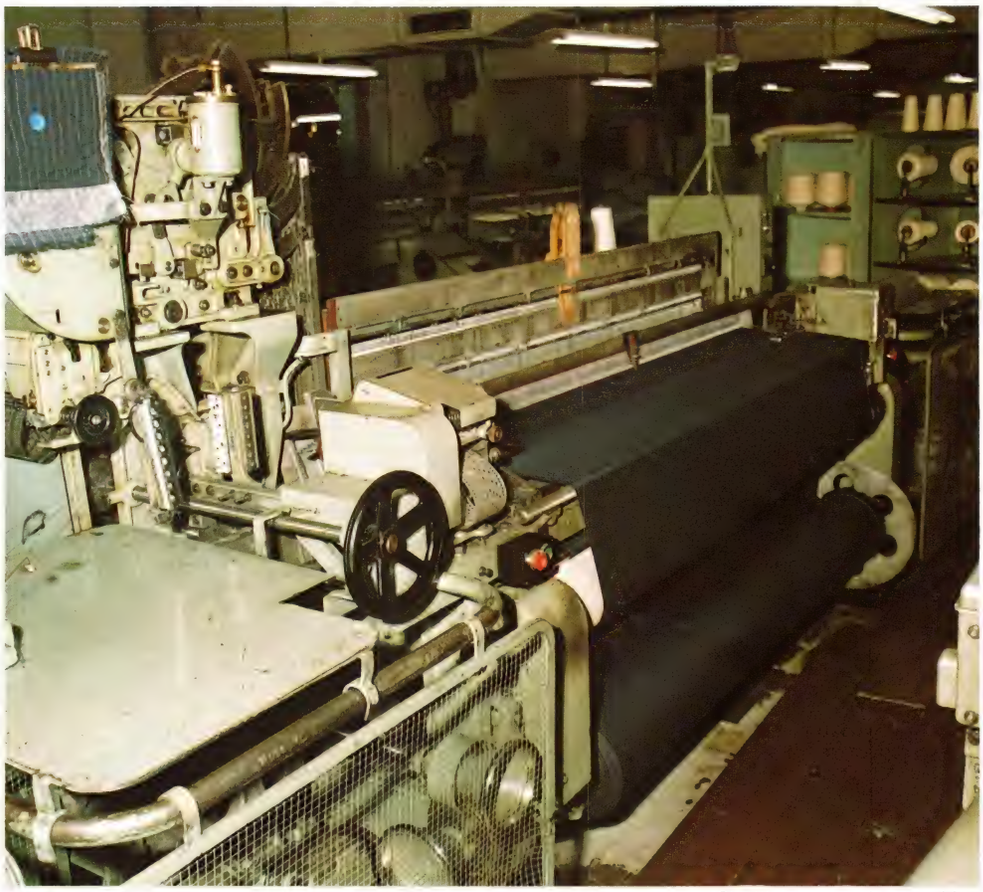
Alliance Textiles is a totally vertical operation, with an associate company providing the scoured wool required for conversion into yarn and fabrics at the Group's four mills. In turn these mills supply the three wholly owned subsidiary companies, Swanndri Ltd, Rembrandt Suits Ltd and Levana Jersey Fabrics Ltd.

With such a wide choice of manufacturing units, capacity and flexibility are the keynote of the Alliance success story, both at home and overseas. Skilled technical back-up and design service ensure that each customer's special needs are identified. A professional marketing team, with permanent sales managers in Australia and U.S.A., and a Dunedin-based export department, is reponsible for the successful promotion of all Alliance products.

Garment knitted from Fontana hand knitting yarn

All wool tartans from Milton Mill

"Rembrandt" Suits
tailored from Timaru worsted fabrics



Shuttleless weaving machine

New Zealand Commonwealth Games teams uniform
in Timaru worsted fabrics

Alliance's marketing executives visit existing and potential export markets regularly and in order to provide adequate service to its North American customers the Company has established warehousing facilities in San Francisco.

By combining its well-established expertise on the New Zealand market with trends and ideas from abroad Alliance Textiles offers a unique advantage to all its customers, which ensures that it retains its position as one of New Zealand's leading textile companies.

see the index for address details

The Chairman and Board of Directors

The House of Sew Hoy

a pioneer Otago family firm leading the way in exports

In an area like Otago where Scottish names abound, the name Sew Hoy shines out like a beacon. Not just because it is distinctively Chinese, but because it has become synonymous with fair dealing and skilful trading. The Sew Hoy family have been Otago residents for more than 100 years and in that time have built up a reputation for integrity any firm might envy.

Theirs is a merchant family and their first Otago venture was importing Chinese foodlines for immigrants working in the goldfields. They were also active in gold-mining and were instrumental in introducing modern sluicing methods. The company is active in supplying foodlines for NZ markets. It is, however, in the mass production of fashion garments that Sew Hoy & Sons Ltd has made its most spectacular progress. It won an Export Award as far back as 1971, and has been a pace-setter as well as a trendsetter ever since. Many a Dunedin woman, proudly showing the latest fashion garments bought on a visit to Australia, has discovered to her great surprise that they were: "Manufactured in New Zealand by the House of Sew Hoy".

One of the manufacturing units

Discussing new season's styles

swimwear, casual wear, lingerie, fashion dresses, etc, whatever the local or the export market demands, Sew Hoy & Sons Ltd provides prompt and efficient service.

The Sew Hoy family work together as a team. They always give their customers value for money. They deserve to succeed and succeed they have. Their clients, at home and in many parts of the world, know they can deal with the Sew Hoy family with confidence. And the people of Otago are proud of their enterprise and their integrity.

The company has nine factories and employs over 500 people. Approximately half of its production is exported — not in small lots but in bulk consignments, earning millions of dollars of valuable foreign exchange.

Sew Hoys will say that there is no special secret for their success — just hard work. But there is much more to it than that. They use imagination and initiative. They are in constant touch with fashion trends. If the fashion houses of Paris adopt a new trend, the House of Sew Hoy is likely to be manufacturing similar seasonal styles. Its skilled design team swings into action, its production planners follow suit, and the firm has proved that where style, quality, price and back-up service are right, orders always follow. In the simplest terms, Sew Hoy and Sons Ltd succeed because its directors and staff constantly aim to perform faster and better than their competitors. Sleepwear,

see the index for address details

Woodcut of Mosgiel Mill in the 1870's

MADE IN NEW ZEALAND
BY MOSGIEL LTD.
PURE VIRGIN WOOL
flame Safe
FLAME RESISTANT WOOL IN ACCORDANCE WITH FAR 25.853
FLAME RESISTANT WOOL FABRIC

Pioneers yesterday Innovators today

The first woollen mill in New Zealand was established by Mosgiel Ltd. 100 years later Mosgiel is still a trend-setter.

Otago's first woollen mill and the oldest surviving mill in New Zealand, Mosgiel Ltd was founded in 1871 by A. J. Burns, a relation of the famous poet. Burns was able to claim a prize of £1500 from the Otago Provincial Council for the first 5000 yards of cloth to be produced in the province.

Over 100 years later Mosgiel is still setting trends with new products and innovative marketing ideas.

New Zealand's largest woollen mill

From its origins at the Mosgiel mill, 10 miles outside Dunedin, Mosgiel Limited has grown to be the largest textile company in New Zealand.

Three mills, at Dunedin, Ashburton, and the original mill at Mosgiel, now employ over 1500 people with a turnover approaching $30,000,000 a year. 25% of the shares are owned by Company employees, a fact which underlines the stability of the work-force.

New developments for new markets

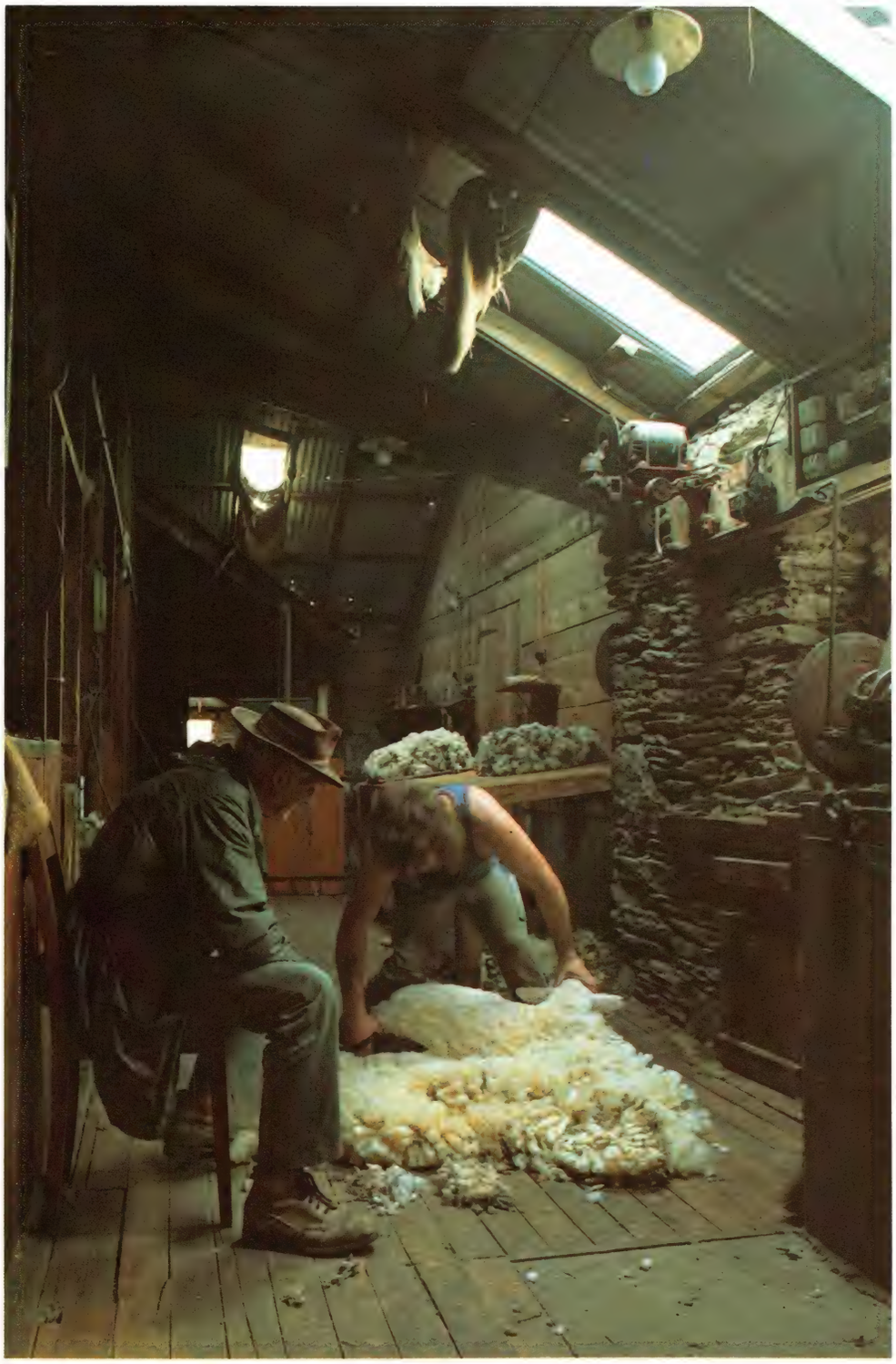
With the help of a skilled development team and the technical resources of the International Wool Secretariat, Mosgiel is continually producing new products to maintain its competitive edge in international marketing: shrink control and flame retardant treatments for woollen fabrics are two Mosgiel firsts.

From raw wool to finished product

Unlike the highly specialist textile companies of the U.K. and Europe, Mosgiel has geared its activities to the needs of a small domestic market: versatility and flexibility. After buying its wool at auction sales throughout the country, different qualities for about every product, Mosgiel processes the wool through all the stages of manufacture to the finished articles — hand-knitting and industrial yarns, blankets, clothing fabrics, furnishing cloths and knitwear. All these products are successfully marketed overseas as well as at home.

Canadian success story

"Cowichan" hand-knitting yarn was developed by Mosgiel to meet the tremendous demand for wool to make Indian-style fairisle garments in Canada, a technique first evolved many years ago by the Cowichan Indians who spin and knit their own raw wool. A high quality product and an original packaging concept have made this a true marketing success.



Exports by Air

North America and Japan. Individual styling and high quality are the basis for the successful marketing of these products.

flame Safe

Flamesafe is a Mosgiel brand name applied to its flameproof woven fabrics, adding the highest possible level of protection against burning to wool's inherent flame resistance. This makes Flamesafe the safest fabric in the world.

Specially treated curtain furnishing and office screen fabrics are being sold in Australia and U.S.A. in competition with major international manufacturers of synthetics, proving wool's acceptance as the most attractive and safest material available.

Flamesafe industrial clothing fabric has been launched in New Zealand, competing successfully against lower priced materials because of its superior qualities in this most vital of all protective situations. The Flamesafe range has attracted considerable interest in Australia and North America in the very early stages of market introduction, and promises to become a major part of Mosgiel's growing export success.

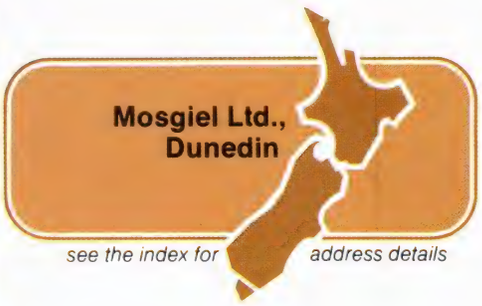
MOSGIEL

Garments knitted from Cowichan Yarn

To follow up a range of conventional knitting yarns has been designed and marketed in Canada and the U.S.A. under the "Shepherd from New Zealand" brand name.

Sweaters New Zealand style

New Zealand has a world-wide reputation for rugged woollen sweaters and Mosgiel has produced a range of knitwear specifically for



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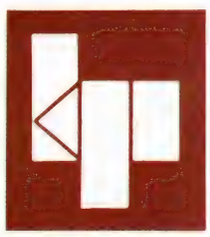
Strip packaging machine



Tablet making machine

Original manufacturing operations were started in 1879 and while Kempthorne Prosser and Company later diversified into fertiliser manufacture, the pharmaceutical manufacturing and distribution activities have been subject to continuous growth and expansion.

In essence, the division's activities cover the whole health and science needs of the community consisting of pharmaceutical manufacturing and the wholesaling of pharmaceutical, dental, surgical and scientific products.

The modern pharmaceutical laboratories in Dunedin not only manufacture a comprehensive range of locally formulated products for supply to chemists and hospitals, it also holds a number of important contracts to manufacture ethical products under licence for international companies.

The division began implementing the internationally accepted Code of Good Pharmaceutical Manufacturing Practice some years before it was formally adopted and promoted by Government agencies in New Zealand and it is because of this and the high calibre of staff and equipment that the division has achieved such a good reputation among international drug companies.

Apart from the manufacturing of overseas developed products under licence from supplied ingredients the division also synthesises active ingredients from raw materials, the only pharmaceutical manufacturer in New Zealand to do so. In addition, the division owns and operates two subsidiary companies: Shalfoon Bros. Ltd which imports and acts as agents for a wide range of dental equipment and supplies and

Pharmaceuticals manufactured by Kempthorne Prosser

Leading the N.Z. pharmaceutical Industry

The Pharmaceutical Division of Kempthorne Prosser and Co Limited is the largest and most sophisticated operation of its type in New Zealand.

Pharmaceutical warehouse

The processing of liquid Medicines, Ointments and Creams.

Grafton Supplies (1965) Ltd which markets and distributes the world famous Beiersdorf range of specialised surgical plasters and first-aid dressings.

While the division owns and operates 18 warehouses strategically placed throughout the country to service pharmacies, doctors, dentists, veterinarians, universities, hospitals, schools and industry — the largest such operation in New Zealand — Kempthorne Prosser has a fast expanding export activity which currently services the whole of the South Pacific area (including Papua/New Guinea) and latterly South East Asian countries, with all ranges of products.

Staff from the division's Auckland Export Office travel regularly throughout the Pacific area both servicing existing clients and seeking out new business.

Export activity has more than doubled during the past few years and now forms a significant part of the division's activities, growing at a rate of about 15-20 per cent a year.

Initially the division's export operations covered the immediate Pacific Basin area but this has since been expanded to include Papua/New Guinea, the British Solomon Islands, Singapore and Malaysia.

Because of the versatility the division has had to develop to deal with smaller markets, Kempthorne Prosser is able to cope more efficiently with export market demands than the larger international companies.

Most of the products exported are prescription products, such as analgesics, but other products exported include surgical and dental equipment, surgical dressings and the two major cosmetic ranges handled by the company, Rimmel and Mennen.

Apart from specialist surgical and dental products, most of the division's exports are manufactured by the company at its Dunedin laboratories.

see the index for address details

Mennen toiletries, marketed in N.Z. by Kempthorne Prosser

Imagination plus expertise make McLeods products market winners

Meet the Flintstones . . .

. . . Yogi Bear, Huckleberry Hound or Top Cat . . . These internationally famous Hanna-Barbera characters are part of McLeod's range of novelty soaps currently being marketed in New Zealand.

Prompt development of a product concept and immediate production of product and packaging are vital for the successful marketing of topical, short run novelty lines. McLeods are specialists and have proven their flexibility time and again. To facilitate delivery McLeod's printing and packaging associate company, Ampac, provide imaginative, quality packaging when and where it is required.

The scope and sales potential is international and limited only by a marketeer's imagination. McLeod Bros Limited, Dunedin, can turn an idea into reality.

McLeods are international by reputation, specializing in Contract Soap Manufacture for Avon, Shultons, Shiseido, Middows Taylor and Cussons to name a few.

McLeod Bros. Ltd. are pioneer soap manufacturers. They produce gift packs, novelty soaps, bath cubes, soap powders, commercial bar soaps and a range of candles.

A major part of the McLeod operation is the manufacture of Stearic and Oleic Acids, fatty acid derivatives vital to many industries for the production of cosmetics, carpets, rubber goods candles and numerous other products.

Carter Holt Holdings Ltd the parent company of McLeod Bros, Ltd, is a New Zealand-wide group of companies offering a wide range of goods and services based largely in the primary products area. Carter Holt branches and joint venture companies operate from more than 30 locations throughout New Zealand, supplying building materials, fittings and accessories, and operating timber sawmills.

Subsidiary companies are involved in forestry — produce wood pulp and sawn timber for export — provide one of the country's largest road transport services — manufacture and package chemicals, cosmetics and household products, under contract, for the domestic and overseas markets — construct commercial and industrial buildings — operate the country's largest fishing enterprise, much of whose product is for the export market.

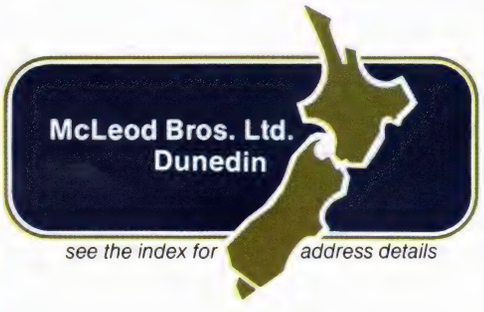
Carter Holt group companies have also a long history of exporting building materials and modular building systems for commercial and domestic purposes, throughout the Pacific and into Eastern countries.

Enquiries related to any of these activities should be addressed to P.O. Box 8532, Symonds Street, Auckland, New Zealand.

International brands of toilet soap produced by McLeods

Soaps and packaging by McLeods

CARTER HOLT



see the index for address details

New Zealand's unique beer

It takes great technical skill to produce quality beer — but New Zealand's pure water and clear air play a part. Conditions are perfect for the growing of sun-ripened barley and quality hops, and malt from the Canterbury Malting Company is in record demand on the export market.

Steinlager and Lion Export are made from a unique high alpha-resin hop which gives a delicate aroma not found in beers from other parts of the world. Quality control and the most modern equipment, plus the skill of master brewers and attractive packaging, are further aids to ensuring that the needs of discriminating overseas markets are met.

The top New Zealand Breweries seller overseas is Steinlager. It reaches the North American market in "six-packs" containing a new style green bottle of 12 U.S. ounces and decorated with full colour scenes featuring snow-capped mountains and clear lake waters. A special resistant board ensures that the pack can remain refrigerated without deterioration.

Also available to export markets in 750 ml bottles and 460 ml cans, Steinlager scores high against other imported beers in the United States. In blind tasting tests, 40 American tasters out of 54 put this New Zealand beer ahead of Heineken. And the famous gourmet group "Les Amis Du Vin" overwhelmingly voted for Steinlager at a test tasting of 16 leading beers from overseas. Lion Export is relatively new to overseas markets but its distinctive black and gold 460 ml can will become better known before long. New Zealand Breweries sales in the United States are helped by membership of the Uniform Product Code. This permits access to stores with electronic scanners recording the sale and stock level. Manual stocktaking is eliminated.

The New Zealand Breweries operates six breweries, including one in Dunedin. It is the second largest company in the country, with a staff of almost 4,700, an annual sales figure of $US250 million. The Company owns more than 340 hotels and taverns and has 6000 hotel rooms. It serves New Zealand well, and its quality products are now being exported to Australia and the Pacific Basin as well as to the United States.

The sweet taste of success

For every dollar
spent on chocolate in New Zealand
60 cents is spent on a Cadbury product –
that's the measure of Cadbury success
on the New Zealand Market.

The Head Office and Factory of Cadbury Schweppes Hudson Ltd., situated in the heart of Dunedin, has a reputation to be reckoned with. That reputation is built on quality production of a major share of New Zealand's chocolate, confectionery, biscuits and food drinks; and such an outstanding record of management/staff relationships that the company has never had a strike or a stoppage in its 110-year history.

Take into account the fact that, with more than 800 staff members, the company is one of the biggest employers of labour in the city and the record looks even more impressive. Staff turnover is very low and many of the people producing Cadbury chocolate and Hudson's biscuits spend their working lives in the company's service, providing the knowledge and experience essential to the maintenance of top standards.

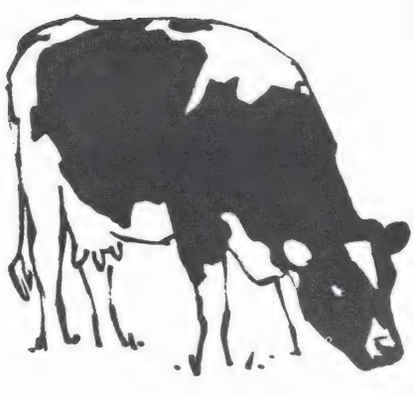
One of New Zealand's Oldest Companies

The original company, R. Hudson & Co., started manufacturing in Dunedin in 1868. In the early days, only biscuits were produced but the company gradually expanded into chocolate, confectionery and other products which were produced on the present site in Castle Street.

Meanwhile, Cadbury and Fry, two long established English companies which had merged, were exporting their famous chocolate products to New Zealand but, with their sales restricted by the introduction of import controls, Cadbury Fry amalgamated in 1930 with R. Hudson & Co., to form Cadbury Fry Hudson Ltd.

The company grew rapidly and gained market leadership in New Zealand for its chocolate and cocoa products. The Hudson biscuit brand also prospered and, with increasing demand, a new factory with the most

Part of quality control laboratory



HUDSON

Some of the Cadbury range of products

Cadbury

Jacob Schweppes, a British subject of Austrian birth, opened a factory in London for the manufacture of high quality carbonated waters.) In New Zealand, Cadbury Fry Hudson took over all the controlling interests of Schweppes (N.Z.) Ltd., and changed its name to Cadbury Schweppes Hudson.

The Cadbury company has been making chocolate throughout the world since 1831, and the early Dunedin company of R. Hudson supplied the New Zealand market from 1868 till the merger with Cadbury, Fry in 1930.

Two descendants of the founder of the Company are still employed by the Company, and there has in fact been an unbroken line of Hudsons in the Company since its foundation.

modern turbo radiant ovens was built at Papakura, near Auckland, and opened in 1965 to supply N.Island and export requirements.

In 1969 the two world wide businesses of Cadbury and Schweppes merged. (Schweppes had been founded in 1792 when

Confectionery wrapping machine

Land of Milk and Honey

With its temperate climate, lack of pollution and strong agricultural economy, New Zealand has the attributes of a land of milk and honey. Farm lands close to Dunedin are blessed with lush pastures where pedigree herds produce some of the creamiest milk in the country. Milk is an essential ingredient of Cadbury's chocolate and, each morning, giant stainless steel tankers arrive at the company's condensing plant. There the milk is tested for purity and richness, sugar is added and water evaporated. In this way the milk is concentrated to a form suitable for use in Dairy Milk chocolate.

All over the world Cadbury Dairy Milk chocolate is recognised for its quality. It is as true today as it was a century ago that there is a glass and a half of full cream dairy milk in every half pound, and this is one of the main reasons for Cadbury's success. Top quality milk is combined with the best cocoa beans, imported from Ghana, sugar from Australia and Fiji.

The quality of the ingredients is matched by the quality of skills of those who handle them in the harmonious atmosphere already referred to. And there is a further dimension to the technical and marketing know-how in that the resources of the worldwide Cadbury group are available to the New Zealand operation. The group, with an annual turnover of almost £900 millions ($1,650 millions) is one of the world's major food industry concerns.

Cadbury combines quality ingredients and proven manufacturing skills with intensive market research. A great deal of time and money is spent on establishing the needs of consumers. To underline this — the Chairman of Directors himself is a member of the quali-

Biscuits entering oven

ty-control panel which regularly meets to check aspects of production, including conditions of the utmost hygiene, and to investigate any complaints which may have been received.

Cadbury policy is to guarantee quality and the Customer Services Manager ensures that the requirements of this guarantee are met. Through constant concern with quality and consumer requirements, Cadbury retains its supremacy in the market. Of every dollar spent on chocolate in New Zealand more than 60 cents is spent on a Cadbury product. In addition, a wide range of high quality biscuits, under the Hudson brand,, is sold on the domestic market and, in ever-increasing quantities, to a large number of export markets.

Overseas Sales Earn Export Award

Over the years the company has built up an enviable record in exports which was recognised by the Government in 1968 when one of the earliest of the highly prized Export Awards was granted to the then Cadbury Fry Hudson Ltd. The company is totally committed to exports, from top management down, and when there is a conflict between domestic and export requirements, export usually has a priority. Cadbury's Export Department is responsible for developing overseas markets and ensuring that these are properly serviced.

This, of course, requires the Company to know as much as possible about the needs of these markets, and where New Zealand made products can best fulfil these needs.

Cadbury people are proud of the quality of their goods: proud of their record as manufacturers of high quality foodstuffs: proud of their reputation as good employers and significant contributors both to the national economy and to New Zealand's export drive.

see the index for address details

Milk separator at Dunedin Milk Station.

Dairy farming with a difference

Dairy farming in Otago and New Zealand is in many ways strikingly different in stock and pasture management, ownership and labour intensity from that practised in European countries and North America.

To begin with, because of the mild climate stock do not have to be wintered and fed in stalls. They are on pasture all the year round. And pasture (or hay and silage from pasture) is the cows' only feed. The New Zealand dairy farmer has developed techniques of maintaining pasture growth without the need for any form of ploughing or cultivation. One of them is rotational grazing over the whole farm and within fields by means of portable electric fences which are shifted daily. In summer some fields are closed off to grow hay and silage for supplementary winter feed.

Large herds, little labour

Individual herds are large by overseas standards (the average is 120) and the labour used to milk and manage them is kept to an absolute minimum. In fact the one-man (or man-and-wife) farm is the norm.

Healthy herds

New Zealand herds are probably the most disease-free in the world. All animals are tested regularly and a computer-based system of surveillance is co-ordinated with field and laboratory research. Quarantine regulations are extremely strict.

Milking techniques

With many more cows than people to milk them, New Zealand, of necessity, pioneered mechanical milking. A dairy farmer can milk up to 350 cows an hour in some sheds using electronically controlled automated equipment. Rigid standards of construction and hygiene are enforced by the Department of Agriculture. For example all metal (pipes, coolers, storage vats) in a milking shed has to be of stainless steel.

Collection and processing

Before the days of motor transport, fifty or sixty years ago, the governing factor in the establishment of a milk processing plant was the time taken by a horse and cart to reach it from the farm by say 9 o'clock in the morning. This meant a proliferation of small creameries and cheese factories. Tanker collection of whole milk began in the early 1950's. This followed the improvement in rural roads, and led to the establishment of larger and more efficient plants.

Today there are only four milk processing plants and three cheese factories in the whole of Otago, where before there were dozens. Whole milk is the only product of Otago dairy farms. This is used mainly for town milk supply, but also for cheese manufacturing.

A selection of milk products manufactured at Dunedin Milk Station.

Let's talk business over a cup of tea

While New Zealand does not grow its own tea, New Zealanders drink it by the gallon. They are amongst the largest consumers per capita in the world, and the most quality-conscious.

Bell Tea, one of New Zealand's oldest brands meets the quality taste requirements of New Zealanders . . . it's a volume selling premium brand and one of New Zealand's market leaders.

The Company is engaged solely in the blending and production of teas and also markets several other National brands.

Quality is the key to Bell tea's success in the New Zealand Market and the export trade. The first secret of Bell's quality is complete reliance on the choicest (and most expensive) part of the teabush, known as "two leaves and a bud". Only the tips of the tea plant, known as the "flush" are purchased by the Company's buyers.

Tasting and Testing

Samples of the thousands of different teas available throughout the world are received regularly by The Bell Tea Company and are studied and tasted. If suitable they are purchased and blended together into Bell Tea. The quality and standard flavour of the product is constantly checked by the tea tasters. Company staff regularly visit plantations overseas to select the quality teas. The Company is not bound to any source of supply, and is able to select the best available throughout the world.

Auckland Factory of Bell Tea Co. Ltd.

Tea tasting in Dunedin Factory

Factories and Packaging

The Company operates two blending and packing plants — in Dunedin and Auckland. This ensures easy and quick distribution of the product. Bell Tea is produced in 250g packs as well as Tea Bags on the world's most sophisticated machinery.

Export Standards

The Bell Tea Company has rigid standards, and only markets tea of consistently high quality. If you are interested in importing a premium blend, then Bell will be pleased to talk business.

see the index for address details

A preparing line for natural fibre Cordage Products

Final reeling of a newly manufactured Multiplait Rope

Marine farming of mussels on "Christmas Tree" Mussel Rope especially developed by Donaghys for mussel farming

Donaghys: drive and diversification

For more than 100 years the name Donaghys has been synonymous with ropes and twine. Farmers know it well and so do fishermen. People in the shipping industry, merchants, sportsmen, even workers backstage in the theatre and housewives in the kitchen recognise Donaghys as a traditional supplier. Not so many will know that Donaghys were also pioneers in the export business. Back in 1876 they were the first New Zealand manufacturers of binder twine. This, along with top quality natural fibre ropes, put them at the top of the cordage industry and, within a very short time, they had established markets in several Australian states and in the Pacific Islands.

Today, the company's business reflects its readiness to diversify and expand while still retaining the initial drive in the manufacture of cordage. There is no doubt that the traditional cordage business remains the company's most

Many types of cordage are supplied for use in the fishing industry

Preparation for Polypropylene cloth manufacture

Equipment for the extrusion of polypropylene tapes

important activity, but there are three other types of operation which have added to the prestige and growth of Donaghys. They are textiles, food production and coolstores. Special store is set by the activities in textiles where ancillary companies are engaged in extrusion and the production of woven cloths, bags, sacks and similar goods. These operations have significance in New Zealand's export drive in that they service primary industry which continues to be the country's major earner of overseas funds.

Serving agriculture

The story of this enterprising company began in Dunedin more than 100 years ago with the provision of a service to agriculture and shipping. These links have been retained ever since, but with a considerably expanded range of products, including a variety of lines produced from synthetics. In addition to a comprehensive range of general cordage, Donaghys supply natural and synthetic baler twine, Livestrand electric fencing twine and goods from the Textile Division which have a farming application.

DONAGHYS

Meat and Bone Meal Bags manufactured by Donaghys

Rope and cordage products are manufactured in ever-increasing quantities on a round-the-clock basis. To meet growing export orders the company was forced to increase its manufacturing operations to a 24-hour programme.

There has been a spin-off for related industries. The technical staff of Donaghys maintain close liaison with the New Zealand Linen Flax Company's factory at Geraldine and a major proportion of that company's output is purchased to make flax yarn. This is exported to Australia in quantity for incorporation into a variety of cordage products sold on that market. The flax yarn business helps the export trade, helps the Linen Flax Company, and also benefits South Canterbury farmers by providing them with an additional source of revenue.

"Livestrand" Electric Fencing Twine used for breakfeeding pasture

Spooling of polypropylene tape for use in the manufacture of synthetic cordage and bags

One of New Zealand's top racing yachts using Donaghys Cordage for sheets and halyards

Modern techniques in Haybaling using Donaghys Baling Twines

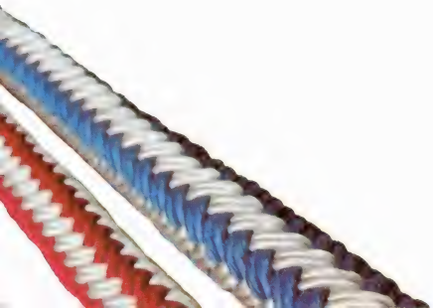
Links with the local farming industry are strengthened by the activities of the Textile Division. Using the latest technology, synthetic products are extruded for the manufacture of bags used to carry fertiliser and various cash crops such as onions. The major meat freezing industry of the country is also served by the manufacture of stockinette covers used for carcass wrapping. Pelt caps are manufactured for use in export packaging of green hides.

As a result of these activities Donaghys not only continue to be major export earners in their own right but provide essential support for other exporters.

Down To The Sea . . .

So long as men go down to the sea in ships, Donaghys will continue to have a role in the field of marine supplies. Not only is the fishing industry served but also thousands upon thousands of amateur yachtsmen who sail on New Zealand's many fine harbours every week-end, and the semi-professional sailors who engage in the ultimate test of their seamanship by taking part in major ocean-going races.

The company's heavy involvement in cordage from man-made fibres has special relevance. These fibres include nylon, polythene, polypropylene, polyester and polyvinyl alcohol. Ropes made from these fibres have important application to the fishing industry. Not only have they great strength but their resistance to deterioration and decay is greater than that of ropes made from natural fibres.



Food production

Support for the fishing industry is not merely in the form of cordage but in the purchase and processing of products won from the sea. There is ample evidence that Donaghys' seafood pâtés (smoked eel, scallop, oyster, mussel and rock lobster) have won acceptance in discerning international markets in 20 or more countries. The same is applicable to soups, including lobster and scallop bisque, oyster, mussel chowder and tuatua.

The pâté and soup ranges have also been extended into meat-based products such as venison pâté, venison broth and pâté maison.

Workers involved in production in the food processing factory

lochland

A serving of Donaghys' Pâté

A selection of Donaghys' speciality food lines

Coolstore supplies

The coolstore operations are ancillary activities to other aspects of Donaghys' business. There is, however, still a link with the traditional undertakings in that the farming and fishing industries remain users of the coolstore facilities.

Research and development

Donaghys place great importance on research. Here again there is diversity for research which has two decidedly different facets. There is constant research in the marketing sense to determine what products will be in demand, especially in the export field, and there is applied research in laboratories where the product range is under regular review, as quality control is of vital importance.

Donaghys think in terms of quality, in every field of operation. It is difficult to compete with cheap labour in some countries — unless the product is so superior that it commands attention.

For more than a century Donaghys have been building on their initial skills in order to improve their ropes and cordage and the ancillary products which are now manufactured. They have also been building in the physical sense in that operations have expanded to other parts of New Zealand. Success on the home market has developed into success in the export market, with resultant benefit to New Zealand in the provision of employment, not just in Dunedin where it all began so long ago but in Auckland, Wellington, Christchurch and other centres.

Donaghys have a proven record and they take pride in their achievements. Their continuing commitment to expansion, particularly in the development of overseas markets, has led to substantial capital investment in plant and buildings. But it is the emphasis on producing only the best which has won them their reputation. As a result they confidently reach out, not only to the domestic market but in an ever-increasing way to the world.

Donaghys Industries Ltd., Dunedin

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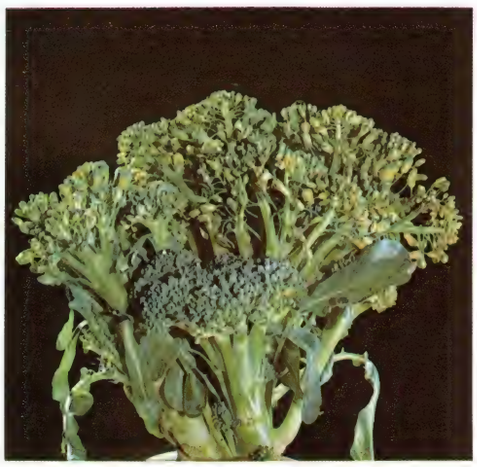
GOVERNOR GENERAL'S AWARD FOR EXPORTING



Fine foods – one of the hallmarks of gracious and sophisticated living. It goes with crisp table linen, quality silver, the best wines, candlelight and top service. Wilson Neill Ltd know their markets and export fine food all over the world. The products of fertile fields and teeming fisheries are sent from New Zealand to delight the eye and tempt the palate in homes and restaurants around the globe. Wilson Neill export epicure foods: lobster tails, scallops, eels and other fish; venison and cuts of lamb, mutton and beef; fresh vegetables and berry fruits — canned and frozen foods of every type.

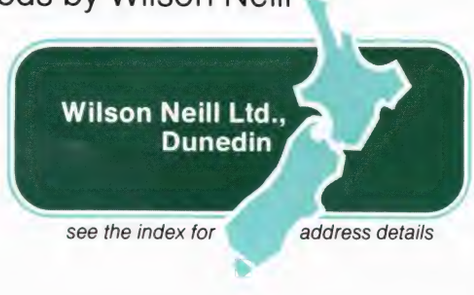
As New Zealand's leading exporters of specialty foods, Wilson Neill Ltd won renown at home as well as abroad. Official recognition has been achieved as well as consumer approval. In 1972 the company received a New Zealand Export Award, and again in 1978 the Governor General's Award for exporting was bestowed.

Wilson Neill gracing the tables of the world

Homes and restaurants throughout the world have been introduced to New Zealand's epicure foods by Wilson Neill

One of the secrets has been the ability to remain alert to market requirements round the world. Wilson Neill executives are in daily touch with market conditions overseas and within New Zealand. And, as well as receiving market reports, top executives regularly travel to see and discuss market conditions overseas.

They keep close contact with other markets, too. Fine foods are not their only exports. Wilson Neill engage in overseas selling of furs, hides and skins, especially opossum and deer, and alfalfa and other stock foods, besides timber, grain and seeds.



see the index for address details

The luxury of natural wool

PURE VIRGIN wool® PILE

A quarto combination floor rug

Windward skins

New Zealand. The land of the long white cloud — a country of 60 million sheep and 3 million people. The finest woolskins in the world are produced here. New Zealand sheep and lamb skins are selected, tanned, dyed and finished in the South Island of New Zealand by Windward Skins Ltd., who use the most modern technology to convert one of nature's most versatile resources into an impressive range of diverse and original products.

Windward have created a superb range of furnishing rugs, clinically treated Infant Care lambskins, Superlustred shearlings, Garment Fur Trim and Medical rugs. These products are easily cared for by drycleaning, hand or machine washing.

Specific instructions for the best care of each product accompany every article. Windward are proud of their range of prestige products. They bear witness to their relentless quest for quality, elegance and craftmanship, which has enabled Windward Skins Ltd., to meet successfully the considerable challenge of world-wide competition.

Furnishing with wool

Windward make rugs — from single-skin scatter rugs to magnificent large quarto combinations (as illustrated). Textures vary from shorn sheepskins to longwool lambskins, in colours from muted and soft, to vibrant and striking. Whichever way you use them — as floor rugs, furniture covers or wall hangings, "Windward" skins will add distinction and elegance to any home.

Medical bed rugs

These rugs are cool in summer, warm in winter and absorb perspiration. Clinics and institutions recommend and use them for bedridden patients, and they provide the ultimate in comfort for everyday use. These specially treated rugs are tanned, dyed and finished to New Zealand Wool Board specifications (Category A — Medical skins).

Garment fur trims

Windward take pride in their large range of specially selected and treated skins which give a realistic fur look to garments.

Superlustred shearlings

A highly specialised process produces the superb finish on these selected sheepskins — for use by the discerning manufacturer of garments, car seat covers and other products.

Infant Care washable lambskins

Babies love the cuddly softness of these washable lambskins, which give snug comfort in bed, cot or pushchair. They are clinically treated to the New Zealand Wool Board specifications (Category C — Infant Care skins). *Illustrated below*

Woolmark quality

All "Windward" products are Woolmark quality — your assurance of pure new wool, manufactured and tested to world-wide independent standards of quality set by the International Wool Secretariat.

Enquiries are welcomed and should be directed to the marketing representatives and major shareholders — Wilson Neill Ltd (Export Services). P O Box 958, Dunedin, New Zealand.

Windward Infant care lambskin

Mustering sheep in South Island high country

Windward Skins Balclutha,
an associate company of Wilson Neill Ltd.

see the index for address details


McSKIMMINGS

Made from New Zealand

McSkimmings is a resource-based industry which brings modern technology to an ancient craft

Craftsman fettling a toilet pan

Quality control laboratory

Paving tiles in Dunedin's "Exchange" area

Every McSkimming product is truly a little bit of New Zealand because all of them are made from clays and other non-metallic minerals, mined from the abundant resources in this country. McSkimming Industries Ltd. manufacture high quality ceramic products. These include bricks and paving tiles, sewerage and drainage pipes, bathroom ware, field tiles, refractory products. Some of these products are processed by an interesting combination of ancient crafts and modern, sophisticated technology.

At left: a selection of McSkimming products

The potters craft and modern technology

The blend of old and new methods is most strikingly illustrated in the manufacture of vitreous china sanitary ware. A craftsman fettling a toilet pan is demonstrating techniques and skills that potters have used over the centuries, but sophisticated technology comes to the fore in the refining, processing and blending of raw materials, the precise control of temperature and the firing cycle, and the monitoring of these processes by highly qualified ceramic technologists and chemists.

McSkimmings make a full range of bathroom ware — four types of Toilet Pans, and twelve designs of wash hand basins and pedestals plus such ancillary fittings as toilet seats and Flex-O-seal synthetic plumbing joints. McSkimmings are the only New Zealand manufacturers of sanitary ware.

Old as history — modern as the minute

Bricks are one of Man's oldest building materials, but McSkimmings have given them an exciting new dimension. Gone are the days of standard "redbrick". McSkimming bricks are produced in a range of natural colours with subtle variation in colour toning to add character and eye-appeal, burnt-in colours which never fade and never need maintenance.

The standard colour range includes chocolate (dark brown and very distinctive), cream (light and clean), golden tan (naturally brown and earthy), red (traditional favourite) and coffee (a pleasing shade of mid-brown). Each brick is available in a variety of textures: plain — a relatively flat surface, strata — deep furrows for an interesting texture, bolstered — rich, chunky and attractive. Standard bricks are available in three sizes and shapes: Standard 230mm x 110mm x 70mm, Romans 290mm x 90mm x 57mm and Colonial 290mm x 90mm x 90mm.

A new addition to McSkimmings range is the "Old English" style. These are a premium range of bricks designed to impart a traditional hand-made appearance. "Old English" bricks are extruded from a special blend of South Island clays. Various additives create the special effects. These bricks are fired almost to vitrification, rendering them strong, waterproof, and durable. Varieties include Coach House clinker, a solid clinker brick, Gate House Reds, a perforated clinker brick, Medieval clinker, a perforated brick with a simulated clinker finish, Manor House Reds, an "aged" brick whose texture may be further enhanced by rumbling, and Camelot Pavers, a perforated clinker tile. "Old English" bricks are in a standard size of 230mm x 70mm x 110mm, and the Camelot pavers are 190mm x 190mm x 40mm.

McSkimmings have a brick for every purpose — veneers, structural brickwork, arches, reinforceable bricks, and however innovative your design, McSkimmings can supply technical advice for any application.

Feet of clay

McSkimming paving tiles are a selected range of fired clay products designed as an attractive and highly durable paving material for shopping malls, plazas, city squares, schools and institutions and in high wash-down areas in industry. They have proved highly popular in New Zealand and recent applications include 33,000 tiles in the Exchange area of Dunedin and 20,000 tiles laid in a shopping mall in New Plymouth. Paving tiles are available in three sizes: 190mm x 190mm x 40mm; 217mm x 105mm x 38mm; 150mm x 150mm x 25mm. Five colours: red, golden tan, coffee, chocolate and cream. Three finishes: plain, non-slip, clinker. And with square or bull-nose edges.

Earth to earth

Ceramic pipes are the preferred choice of most engineers for sewerage and drainage purposes and McSkimming pipes are in wide use throughout the South Pacific. They are available in a vast range of sizes and shapes, some of which are illustrated.

Another McSkimming drainage product is Field Tiles. These are unglazed, porous ceramic pipes used for permanent drainage of sports fields and farmlands. A huge area of some of Otago and Southland's most productive farms are drained by McSkimming Field Tiles.

Refractories for your factory

Recently McSkimming Industries introduced an expanded range of refractories. Now besides conventional firebricks, McSkimmings range includes refractory mortars, castables (a type of refractory "concrete") and rammables (refractory linings which are "rammed" into place). Refractory castables consist of graded refractory aggregates blended with hydraulic setting high alumina cements, dry mixed and packaged. Medium duty high strength and super duty grades are available. Firebricks are of two types: General purpose medium duty and High strength abrasion resistant.

see the index for address details

Junior Construction Set

Exporters think big

"Timberloc" building set

Timbercraft Ltd

Established in 1968, Timbercraft makes wooden educational toys and has expanded into a variety of turned products, including Colonial-style furniture. There is almost a fairy tale quality about the way it all began. The Managing Director, Mr R. T. Stuart, has a family background in the timber trade and this led him to design and make the components of a playhouse for his own children to build.

Jiffy Joiner

From this stemmed the Timberloc Building Set which is keenly sought by schools, kindergartens and parents throughout New Zealand and Australia. This and other designs test and encourage group play and construction skills.

The beauty of New Zealand timbers — Rimu, Silver Beech, Kahikatea and Matai — is apparent in all Timbercraft products, including chairs, beds and a delightful range of bunk sets for children's rooms. Enquiries from overseas for quality products in the educational field, timber components and Colonial turnery are welcomed by this enterprising company. Ring Dunedin 778-896, use Telex NZ5613, or write to Timbercraft Industries Ltd, cnr Halsey and Jutland Streets, Dunedin, N.Z.

Above and below — The range of "Benwear" Thermal Underwear

V. H. Bennetts & Co. Ltd

Here is a company, founded by its present Managing Director, Mr V. H. Bennetts, in 1957, which has grown in both size and status. It began by making thermal underwear for workers in cool stores, but once it had won an order to supply the United States Operation Deep Freeze in Antarctica, interest became widespread.

New Zealanders are great outdoor sportsmen and they have taken to Benwear Thermal Underwear with enthusiasm. And Benwear began to make its name overseas when it was worn by competitors in the great Whitbread Round-the-World Yacht Race. Now its export department is the prime responsibility of Mr Ray Bennetts who sees a great future in the export field for the thermal underwear manufactured in the firm's Invercargill factory.

Garments such as undershirts, sleeveless undervests, elastic waist undertrousers, bib style undertrousers, socks and balaclavas are made from a lamination of nylon tricot, foam and cotton interlock. Its features are warmth without weight, breathing qualities, and freedom of movement for wearers engaged in mountaineering, hunting, hang gliding and winter sports.

Benwear is now used in North America where it is popular with cross country skiers, snowmobile operators and ice fishing. Marine wear has already been mentioned. Benwear scores in this field because of its fast drying qualities.

What began as a mundane operation has developed into a highly versatile type of production with limitless applications. Enquiries from overseas are welcomed by V. H. Bennetts Ltd, 20 Crawford Street, Dunedin.

Giving a final shine with a Chamois leather

Personalised packaging of Chamois leathers

A Rudnev Coldstore

Bayley Tomkins Hedges Ltd

This company dates back to 1882 and is highly regarded as a supplier of quality leathers to the New Zealand footwear industry. However, space permits reference only to its spectacular growth as an exporter, after a very modest start.

In 1938 chamois production was begun, but throughout the war years and for some time afterwards there was little progress.

Then in 1951 a San Francisco firm ordered some chamois leathers. Their price and quality attracted attention, to such an extent that the company had to go in for major reconstruction so that it could meet the demand for chamois from throughout the United States. The export business has continued to flourish and today 800 dozen chamois leathers are produced every week.

Bayley Tomkins Hedges Ltd is fortunate in that it has ready access to chamois, and also to top quality sheep pelts for splitting. From its splitting operation the company has developed markets for Pickled Sheep Grains in Europe, and notably in Italy. In short, it has found that there is always a market for quality goods at competitive prices. Enquiries to Bayley Tomkins Hedges Ltd, Green Island, Dunedin.

Rudnev (NZ) Ltd

In 1969 an imaginative Dunedin engineer, Mr L. J. Sewell, began making coolstores and coldstores as a three-man operation in a shed measuring about 185 sq metres. Because the system used has completely changed the concept of coldstore construction, this home workshop operation has grown into a multi-million dollar business.

Formerly, a building was prepared, insulated with cork, hot-dipped in bitumen and then coated with cement plaster. The Rudnev way is to use prefabricated insulating panels which need no support except in the case of the ceilings of large installations — such as a coldstore of 57,000 cubic metres storage capacity.

The name of the company refers to an Australian engineer, Michael Rudnev, who pioneered this revolutionary system. That name is now known in Fiji, Tonga, Norfolk Island, Samoa, the New Hebrides and Indonesia. To cope with the demand, the company now has a Dunedin factory of 1500 sq metres, and a similar one in Auckland. The Rudnev system is so simple, the construction costs so low, that the export field is wide open. Enquiries should be directed to Rudnev (NZ) Ltd, 33 Brighton Road, Green Island, Dunedin, N.Z.

"Rudnev" structural insulating panels are light and versatile.

In conjunction with the Bank of New Zealand

Timber..

Timber for Taiwan, timber for Japan, timber for the United Kingdom, Saudi Arabia, Belgium and Australia.

Timber for housing and construction, timber in the form of wood chips for pulp and paper production. Exotic timber is readily available in any form — logs, flitches or sawn timber — all from Odlins Ltd. The company has a forestry investment in Otago, enjoys the advantage of securing timber from Otago plantations, right at the point of despatch. And this advantage is reflected in keen pricing and immediate service.

Continuous supply

Forest management policy in Otago is simple and direct: continued development of this valuable resource. Exotic forests planted by the State in Otago have doubled in the past 10 years, and the Dunedin City Corporation and private companies have large plantations. Most of the timber exported is Douglas Fir and Pinus Radiata. The latter enjoys a remarkable growth rate, maturing in 25 years.

Wood chips for overseas

Odlins are one of the major shareholders in a joint venture company, Southwood Ltd., which processes and exports wood chips from the Otago region. Wood chips have become of increasing importance and the proportion of timber despatched in this form is steadily growing.

Native timbers

There is a strong demand for New Zealand native timbers such as Rimu, Totara, Matai and Beech. Odlins have them all available and find that purchasers use them for a wide variety of products. One recent substantial order for Beech went to Belgium to be processed into dominoes! Beech has, of course, many admirable qualities. The close and even texture of Beech timbers makes them good for machining. In addition, they are strong, have excellent bending qualities and are relatively immune to attack from boring insects. Colours range from yellowish white, to pink, to red/brown and to brown/black, depending on the species and whether it is heart or sap wood.

Export experts

It is one thing to have the timber, another to export efficiently. Odlins Ltd. have the experience and the skilled organisation to handle large overseas orders. A New Zealand-based company of considerable resources, the firm is regularly engaged in international trade. As well as timber, the company deals in hardware, electrical supplies, land subdivision and construction. The forestry interests of Odlins are served by 10 sawmills, 19 retail yards and five joinery factories.

see the index for address details

2/Farming and fishing

A shearing gang at work

Land under development

Flock of New Zealand sheep

New Zealand's largest farmer

Agriculture is the country's greatest earner of export receipts (over 70%) and has always been a major factor in the development of New Zealand.

The Department of Lands and Survey is the country's largest farmer and for almost 50 years has made a significant and substantial contribution to the nation's economic, social and physical progress through its active involvement in the development and settlement of land. Since 1945 the department has successfully settled more than 5000 men on farms of their own and in recent years it has annually brought about 8000 hectares of idle or underdeveloped land into development projects. The department's land development and settlement scheme has and continues to be achieved at no cost to the New Zealand taxpayer.

Throughout New Zealand the department currently farms about 717,500 hectares which will ultimately provide 1100 individual units to be settled by private farmers. On this area is carried 1.75 million sheep (3% of the nation's total), 240,000 cattle (4.5% of New Zealand total) and 4700 dairy cows (0.1% of the nation's total).

The Otago Scene Magnitude of Land Development and Settlement

Otago province has the greatest area of undeveloped occupied tussock grass lands in New Zealand (27% of the national total). In the decade ending 1970 both the State and private enterprise sectors achieved notable percentage increases in agricultural productivity in Otago viz livestock 30%; 25% increase in area under cultivation; 66% increase in land topdressed; capital expenditure on Otago farms approximated $75 million; a significant increase was recorded in beef production; and wool production increased by 33%. Primary production is big business and continues to be the major source of regional revenue.

Currently some 30,200 hectares are being developed by the Department of Lands and Survey, mostly for ultimate settlement by landless farmers as economic sheep and dairy farms. This area consists of eight properties ranging in size from 230 hectares to 15,650 hectares all at varying stages of development. Once developed and subdivided these properties, or land development blocks as the department calls them, are expected to yield 66 individual farm units. At 30 June 1977 these properties carried 98,800 sheep including 72,700 breeding ewes, as well as 8850 run cattle including 5300 breeding cows and 500 dairy cows.

The largest block is the recently purchased Waipori Station, which has the potential for subdivision into 22 new farm units, as well as providing some reserve and farm forestry areas. In contrast to this the Hindon Farm Settlement (4200 hectares) is now largely developed after some 15 years of farming by the department. Eight farm units have already been settled from this block and a further three are planned to be offered for settlement in 1979.

The Cherry Farm Block (222 hectares) is one of the largest town milk supply farms in the South Island. Milking takes place in a 28 cow rotary shed.

At Akatore the Department of Lands and Survey has established a base farm for a farm forestry grazing venture run in conjunction with the New Zealand Forest Service. Some interesting and very promising results are being obtained from this relatively new concept of trees, grass and stock.

Current Farming

The day to day running of each block is organised by a farm manager and his staff, all of whom reside on the properties in accommodation provided by the department. These farm staff work under the overall supervision of the department's field officers based in Dunedin and Alexandra. The field officers are academically qualified men whose duties include planning and economic costing of development, seasonal budgeting, expenditure control, timing of seasonal and capital operations and determining stock policy. Finance for capital development and seasonal operations is allocated each year by Government and expended in terms of an annual budget drawn up by the field officers.

A modern milking shed

Aerial top-dressing of fertiliser

Docking Lambs

The development and settlement programme is made up of three main phases. These are the development phase entailing the establishment and maintenance of good pasture with appropriate stocking and the provision of basic services to facilitate the efficient running of the Block; the consolidation phase where attention is given to further improving pasture by increasing fertility and to improving the stock through breeding and culling practices; and the final settlement phase where development has been completed and the blocks are subdivided into economic sheep or dairy units suitable for settlement.

Prior to settlement surveyors employed by the department carry out a full cadastral survey of each farm for title purposes. In newly developed areas this can involve extensive survey control and the placement of permanent trig stations before boundary marks are fixed, measurements made and final plans drawn by the department's draughting staff to enable the settler to obtain a guaranteed title. Before and during development surveyors and draughting staff map the topography of the land and monitor the location of the improvements continually being effected. The operations are a multi-disciplinary team effort.

Drenching sheep against parasites

Financing Settlement

All farms offered for selection under the Government's Land Settlement Scheme are allocated by lottery to landless farmers with limited financial resources at a disposal price based on current market value. Stock and plant are provided by the department at current prices and capital finance required over and above the stipulated deposit or cash contribution is made available by Government through the Land Settlement Board. A farmer is settled on a farm that has the necessary services, is fenced and stocked, and has a productive capacity that will enable him to enjoy a reasonable standard of living as well as maintain the property and free it from debt within 30 years. Settlers are responsible for arranging their own seasonal finance from bank, stock firm or other source.

Farm units are balloted annually and in the past 5 years 11 new farms have been settled in Otago. This rate of development and settlement is expected to continue in the future. The Department of Lands and Survey's operations in Otago have seen many men placed on farms of their own at a modest cost and overall the contribution to farming in the province has been most substantial.

Otago's Scope for Development.

Of all New Zealand's provinces probably none has a greater potential for increased farming production than Otago given its large land resource, the flexibility of topdressing and oversowing from the air, and mechanisation of land development. The possibilities for economic expansion of the productive potential of the region's vast land resource have been clearly demonstrated by the results achieved to date both by the department and the private farming sector.

Appraisal

The role of the Department of Lands and Survey in converting idle land into productive farms has a far reaching and lasting effect on the region's economy and in the broader spectrum on that of the nation. In addition to settling men on the land and thereby stimulating the production of exportable goods, land development has produced work opportunities for a wide cross section of the community — shepherds, agricultural contractors, aerial topdressers, transport operators, and workers in the meat packing and building industries.

The farm development and settlement operations of the department are an integral factor in the economic and social development of Otago. These operations will continue and the Department of Lands and Survey is proud of the role it plays, alongside private farmers, in this important area of New Zealand.

see the index for address details

Deal direct with 9000 farmers!

PPCS is the marketing management arm of 9000 New Zealand farmers

Negotiations with PPCS (Primary Producers Co-operative Society) mean direct trading with 9,000 New Zealand farmers. PPCS is the marketing management arm of these South Island farmers who produce the world's finest lamb, mutton and beef.

The Society is a farmer-owned co-operative which exports meat, wool and pelts, It was started in 1947 to enable farmers in Otago and other parts of the South Island to market their products in competition with the multi-national and New Zealand meat trading companies.

Already committed to the co-operative principle in such facets of farming as fertilisers, meat processing and dairy factories, many farmers see the future growth of international meat marketing coming through their own co-operatives.

PPCS has been showing the way. It now exports to more than 50 countries round the world. Major areas of operation are the United Kingdom and Europe, North America and Japan — and the Society has developing markets in the Middle East, Greece, the Caribbean and South-East Asia.

What Is The Secret of Success?

One of the reasons for the success of PPCS has been that international buyers have welcomed the chance to deal direct with suppliers — with the farmers' own representatives rather than through middlemen in a multi-national corporation. Another is that PPCS is both dynamic and flexible. The channels of communication are always open. Dealing is direct with Dunedin by telephone or telex, with immediate decisions from right at the source of supply. PPCS is in daily communication with every meat market in the world, using the fastest and most flexible media availble — international telephone and telex.

These Men Are At Your Service

The PPCS team provides an extension of the marketing team of every company with whom it deals. The world has been divided into various zones with team members responsible for every aspect of trading in their respective areas — right down to the last detail of every consignment. They have the answers at their fingertips. These are the zones:

North America, Caribbean, Middle East:
Trevor Stewart will answer all your queries.
South-east Asia (including Singapore and Malaysia), Philippines, Korea, Taiwan:
Tony Edwards is in charge of these.
South-west Pacific and New Guinea:
Peter Gillan is the man for these markets.
Northern and Southern Europe, Greece and Japan:
Ian Jenkinson handles these areas.

Defiance Processors

United Kingdom / Europe:
The point of contact in the United Kingdom is Defiance Meats (NZ) Ltd., London. This company is a wholly owned subsidiary of PPCS. The Resident Director and General Manager is Stewart Barnett.
Shipping and Freight Arrangement:
Dale Kwok has all the information at his fingertips.

PPCS believes in personal contact too

If you can't get Trevor Stewart on the phone in Dunedin, it may be because he is in Milwaukee or Kuwait when you telephone. PPCS believes in personal contact.

Trading Executives of the Company visit world markets regularly. The personal relationship with the Company's agents, and the up-to-date knowledge of International markets gained by so doing, is one of the important factors in the success of PPCS.

PPCS International marketing

Whenever possible the Company operates in world markets through the most able and efficient agents in any particular area. Where the market warrants exclusive arrangements, the Company has entered into these to protect and promote orderly marketing.

In most markets however PPCS endeavours to trade with a small number of the most effective importers and wholesalers of meat products.

New Zealand business has an International name for the highest standard of integrity. PPCS places extreme importance on service and efficiency and has earned a reputation for high standards. Without such a reputation, PPCS would not have had the growth in world markets which it has achieved.

When PPCS enters a market it is not a "hit-and-run" affair. PPCS prefers sound, permanent business arrangements where it can assure continuity of supply. It is interested in large orders certainly, and can meet requirements for any quantity, but small orders and trial shipments, especially for new markets, are also welcome.

ppcs

PPCS operations in New Zealand

There are sixteen killing and meat processing works in the South Island of New Zealand and PPCS has access to all of them. In addition, PPCS has its own meat processing works (Defiance Processors) to produce lamb cuts

PPCS executives consulting computer inventory to determine forward sales

PPCS Chief Executive departs for world markets

and package them to customers' requirements.

These meat works operate under the world's highest standards of hygiene. These standards are enforced not only by Ministry inspectors, but also by the stringent requirements of some of the industry's main customers, notably the European Economic Community and the United States of America.

PPCS Meat Products

PPCS are considered to be lamb specialists but this is not their only export item. PPCS exports frozen lamb, mutton and beef. Lamb and mutton are available as whole carcases or cuts, beef as cuts. All these products are available to U.S., European or your individual specifications.

Telex communication around the world

PPCS Slipe Wools

An important division of PPCS is concerned with the sale of Slipe Wools. This by-product is processed at 15 freezing works in the South Island from sheep and lamb killed for our suppliers. Parcels of Slipe Wool can be offered either as a specific Freezing Works production or as a specific grade.

Slipe Wools — removed from the skin with depilatory chemicals during fellmongering — are some of the soundest, most uniformly grown wools in the world and can be directly substituted for any shorn in any application. Being already washed, Slipe Wools can frequently go straight into processing.

PPCS Pelts

PPCS also export pickled lamb and sheep pelts. In each category there are four main grades and various oddment grades.

If you require further information on grades for any of the above meat, wool and pelt products please ask for one of our brochures.

Primary Producers Cooperative Society Ltd., Dunedin

see the index for address details

Taimex is your guarantee of quality

The fur and skin trade in Otago is old-established. Taimex Trading (TXT brand) is comparatively new in the field — but its principal, Chris Taylor, is a young man with considerable personal experience and he belongs to the third generation of a family well-known for its activities in furs and skins.

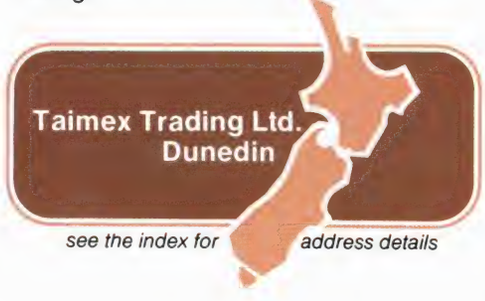
In just four years Taimex Trading has soared to pre-eminence in this international trade. Bales of opossum furs and deer, chamois, thar and goat hides, all bearing the TXT brand are now found in manufacturers' warehouses all over the world — from Osaka to New York, Milan to London, and in Frankfurt, Zurich and Hamburg.

The secret of this swift success is simple: Taimex Trading backs up its knowledge with quality, integrity and reliability. One trading method which has gained the company friends and clients relates to opossum furs. Taimex has all its furs graded by an independent assessor. As a result the offerings are of consistent quality, a factor which is essential for international acceptance. Again, Taimex has no "tied" sources of supply. The firm believes in maintaining an independent stance in its search for quality. It chooses only the best from every available source.

Chris Taylor has worked hard for success and is proud of the reputation he has achieved with clients round the world. Recognition of this success has come from the Ministry of Overseas Trade who have recently granted him an Export Award – and he was voted the 1979 Otago/Southland 'Exporter of the Year'.

Chris Taylor knows, too, that constant effort is required to maintain that reputation. For that reason, those who deal with Taimex Trading can depend on constant availability of supply, consistent deliveries, and integrity in all business dealings.

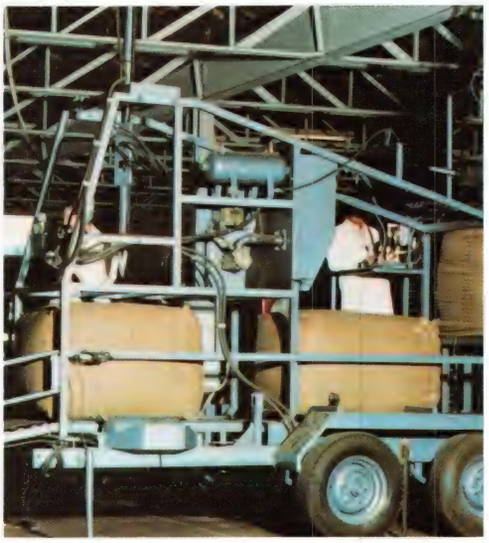
Deal direct with the Principal of Taimex Trading.



see the index for address details

Typical New Zealand wool on sheep's back

Specialised grab sampling and coring machine used to process wools prior to sale by sample and objective measurement.



A wool classer assessing quality

Technical experts examining wool on display at a woolstore

The golden fleece

Wool is vital to Otago's economy and Dunedin is New Zealand's most important fine wool centre. For more than 100 years regular auctions conducted by woolbrokers have been the focal point of each season's activities, but their link with the farming community begins back on the farm, not just in the store and the sale premises.

From their woolbrokers, farmers receive help and guidance in the initial handling of fleeces in the shearing sheds and in classing and presenting this valuable primary product. And activity continues after each sale as bales are made ready for shipment to every part of the civilised world. The woolbrokers of Dunedin have provided on a joint basis what is known as a Central Wool Facility. Here the bales are "dumped" (compressed and bound together) and packed into containers. About 80% of all wool exported through Port Chalmers is nowadays containerised.

The woolbroker is the link between the producer and the overseas buyer, his aim being to ensure that all parties are satisfied — the farmer with his return, the purchaser with the condition of the product when it reaches him.

In spite of the competition of synthetics there is no substitute for wool. Its qualities are recognised throughout the world. Modern skills convert Otago wool into fashion garments of gossamer fineness, into everyday wear, and into carpets and wall hangings of proven durability. The sophistication of the manufacturer is matched by the specialist skills of the woolbrokers for a quality product is entitled to quality treatment at every stage.

Otago's first fortune came from the goldfields. Its enduring progress has stemmed to a large extent from the golden fleece. And, it should be added, Dunedin woolbrokers contribute much more to the sheepfarmer than merely facilitating sales of wool. The woolbrokers are all in the business of serving the farmer in every conceivable way, including financial advances, supplying of fertiliser and machinery, livestock sales, fencing materials and even provisions for the farm kitchen.

Behind the flourishing business of exporting wool there is a network of expertise, of research, of management and administration, of personal involvement with the man on the land. The fortunes of the woolbrokers are inextricably linked with those of the farmer. Here is a classic case of common cause, of co-operation, of skill and understanding. Otago may not ride entirely on the sheep's back, but wool will always be one of its most important assets.

Otago Woolbrokers Assn. Dunedin

see the index for address details

Waitaki NZ Refrigerating Ltd

Pioneers in meat exporting

Waitaki NZ Refrigerating Ltd exports to more than 60 countries.

Drafting prime sheep at the Islington freezing works.

Since 1882 Waitaki NZ Refrigerating Ltd has played a leading role in the New Zealand frozen meat industry.

The early steps across the world towards new markets for our produce were speculative and fraught with difficulty.

The S.S. Dunedin reached London with the first cargo of frozen meat in just over ninety days. The excellent condition of the cargo proved the sceptics wrong.

The second shipment, on the S.S. Mataura, arrived in London at an inopportune time; it coincided with virtual elimination of the local meat famine and much of the cargo had to be warehoused. Shippers lost heavily and gloomy forecasts were made for the future.

But the future was far from gloomy, as the subsequent history of the Waitaki NZ Refrigerating Group has proved.

Waitaki exports to the world the following meat and by-products: Lamb; Mutton; Beef; Fancy Meats; Wool; Pelts; Hides; Tallow; Casings; Livermeal; Meat and Bone Meal; Dried Blood; Neatsfoot oil. All these and more are now exported to over 60 countries as a result of

(A)

(A) Further processing of pelts in New Zealand for export markets is now an established Company activity.

(B) Diversification into specialist products — in this case pet food — has opened up new markets in New Zealand.

(B)

For many markets, containerisation has revolutionised delivery efficiencies.

Exports to the United States represent a most important factor in export turnover.

the Company's constant innovation and leadership in processing techniques and marketing expertise.

Meeting the many and varied demands of international markets has made Waitaki NZ Refrigerating Ltd number one in the New Zealand meat industry, and a major force in New Zealand's economy.

The 22 companies which together form the Group employ over 8,500 people; a work-force which directly and indirectly contributes a substantial proportion of New Zealand's total foreign exchange earnings.

The Group enjoys a high standard of presentation in markets throughout the world, and is well placed to continue its role as New Zealand's major exporter to global markets, with a policy of broadening resources to meet the demands of international marketing.

Works throughput 77/78

	lamb & mutton	beef
Wairoa	410 934	36 748
Imlay	792 640	52 416
Nelson	322 684	36 178
Picton	442 043	3 956
Islington	1,079 834	21 776
Smithfield	1,072 241	
Pukeuri	1,652 379	19 301
Burnside	917 227	19 577
Finegand	1,583 761	36 689

Alpine Helicopters Ltd. pioneers in the recovery of live deer . . .

From the wilds to the farm

Helicopter equipped for live deer recovery

Annual auction sale at Criffel Game Park.

Deer from Criffel Game Park in Central Otago are nowadays exported throughout the East, and especially to Japan, Korea and Taiwan. The story behind this enterprise is one of high adventure and modern technology. It is doubtful that anywhere else in the world are wild animals captured in such rugged mountain country by a combination of flying skill and sophisticated techniques.

Alpine Helicopters Ltd. specialises in the capture of wild deer for Criffel Game Park and Mararoa Station, both substantial deer farms. Skilled marksmen in helicopters shoot tranquillizing darts into selected wild deer. The drug in the darts can take up to 15 minutes or more to take effect, by which time the animal has reached the safety of the bush. Inside the darts are miniature radio transmitters which send out a signal that can be traced by a receiving set in a helicopter. They locate the drugged animal, lift it in a special sling, fly it to a waiting truck where at the end of the day animals are transported to the game farm, where the process of domesticating the deer begins. Other capture methods are also used.

It is very specialised and exacting work, carried out in some of the remotest mountain areas of Otago. The necessary skills were developed when attention in New Zealand phased from deer for venison (and such by-products as antlers, velvet, hides, teeth and tails) to farming them. Alpine Helicopters helped to pioneer this new approach — which today receives Government support. Invermay Research Centre, near Dunedin, has its own experimental deer farm.

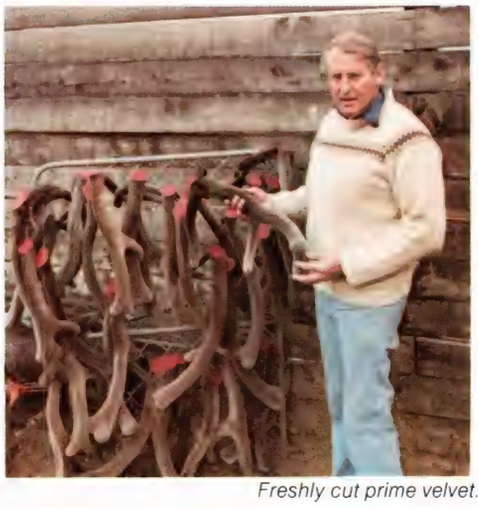
Deer were introduced to New Zealand last century for sporting purposes. They found the climate and topography to their liking, they had no natural enemies, and in a very short time the 10 species from three continents which had been brought to New Zealand multiplied into large numbers. Not only were the numbers huge, but the deer themselves grew far larger than any in Scotland or Europe. Record stags could weigh up to 600 lb. live weight and hinds up to 300 lb. live weight. New Zealand had become a deer hunter's paradise.

Quality velvet.

But there was another side to the coin. The damage caused by deer feeding on grasslands and in forests became apparent, leading to erosion in high rainfall areas as natural cover in the high country diminished. Killing deer became not a sport but a necessity. From the 1930s heavy culling programmes were carried out by Government hunters and, 20 years later, they were being shot at the rate of 100,000 a year.

Alpine Helicopters flying live deer from the snow-clad mountains to Criffel Game Park (Lake Wanaka).

Large captured stag still under sedation.



Freshly cut prime velvet.

By the 1960s venison prices had increased to the point at which export sales were possible, even allowing for the high cost of obtaining deer. Helicopters were used to carry hunters into the back country, and to lift the deer carcases out to meat processing plants.

The next development was deer farming, with Alpine Helicopters well to the fore. From the beginning, Criffel deer have been high quality stock. Only the best animals are chosen from the wild and all are completely disease free. New Zealand does not have foot-and-mouth disease, nor any other disease to which cloven-hoofed animals are prone. It is one of the few countries in the world where quarantine regulations are so stringent that the possibility of outbreak of disease is extremely remote.

The basic aim of Alpine's deer farms is to ensure that breeding stock is of the highest quality. The base herd was selected from areas known for animals of good body conformation and strong antlers. All breeding is carried out from livestock specially selected from the wild. Deer from the property are known for their quiet behaviour and are ideally suited for establishing new herds, or for upgrading herds with improved blood lines.

This is why demand is strong for animals from

Air freighting live deer to the North Island.

Alpine's Game Park. This is why large numbers have already gone to Japan, Korea and Taiwan. This is why Alpine's animals have gained the largest share of the market.

The wheel has turned full circle. New Zealand imported deer for sport. Now it exports high quality deer velvet for the Asian medicinal market. And, from Criffel Game Park, it exports superior quality animals, caught in the wild for breeding in captivity — the finest deer in the world.

see the index for address details

Squid — an expanding fishing activity for Wrightson NMA

(Inset) Rock lobster catch

Farming the sea

Wrightson NMA, best known as a company which serves the farming industry throughout New Zealand, also farms the sea. The company pioneered the export of rock lobster tails almost 50 years ago, sending this delicacy to gourmet restaurants in France. The venture was so successful that the French Government clamped down on imports of lobster for many years. Today, however, France is again a market, and so are the United States, Australia, Japan and Spain. Sole and flounder are exported to Australia, Spain and Canada. And the Company is now expanding its squid fishing activities for the important Japanese market.

The latest addition to the fleet in 1979 will be a $1 million deep sea trawler, primarily fishing for squid.

As they have done for farmers for more than a century, Wrightson NMA provide financial and marketing services for fishermen as well as operating their own trawlers. They have great faith in the future of fishing off the Otago coastline, and are backing this faith with money for both research and development.

Traditionally, most Otago fishing has been an inshore activity for demersal fish, the most popular on the home market. Now, however, operations are moving further afield into previously unexploited fishing grounds. While bottom-dwelling fish will still be caught by trawling, seining or long-lining, attention will be turned more and more to the ocean depths. Fish from deep water will join the traditional tarakihi, groper, blue cod and flat fish in the Company's freezers — on their way to the markets of the world.

A deep-sea trawler similar to Wrightson NMA's new vessel

The introduction of New Zealand's 200-mile fisheries management zone has provided the opportunity for extension of pelagic fishing. Wrightson NMA, pioneers of export activities in fishing, plan to remain in the forefront of an industry which is expanding rapidly.

see the index for address details

Packing fish for export

3/Service industries and organisations

People in the right places

Staff at New Zealand overseas trade posts provide the vital link between N.Z. exporters and potential customers.

Although well established as an international trading nation, New Zealand must still endeavour to increase the volume and range of goods it can offer to world markets. As well as being essential for the maintenance of acceptable living standards, success in our attempts to increase export earnings will determine the extent to which we can buy from our trading partners.

Vigorous efforts are being made to increase awareness, in the international market place, of New Zealand's capabilities as a supplier of high quality goods, and ability to offer unique scenic attractions and facilities for visitors as well as various resources of interest to the overseas investor.

The Otago region was one of the first areas to benefit from the Government's Regional Development Programme and this has contributed to the healthy, sometimes dramatic, growth which is evident in this booklet. In this respect Otago is a microcosm of the diverse contribution New Zealand can make towards the international exchange of goods, services and cultural understanding. It is, therefore, hoped that all readers will find something in the publication to interest them whether they be potential buyers, travellers or investors.

Diversification from New Zealand's traditional role as a supplier of primary agricultural products has not been easy. Indeed, those primary products — mainly meat, wool and butter — are still the mainstay of our export earnings. However, the economic base has greatly expanded and diversified. Exciting new developments are occurring in manufacturing, horticulture and crafts so that we now export goods ranging from aircraft, gourmet foods, hand-knitted garments and pottery to orchids.

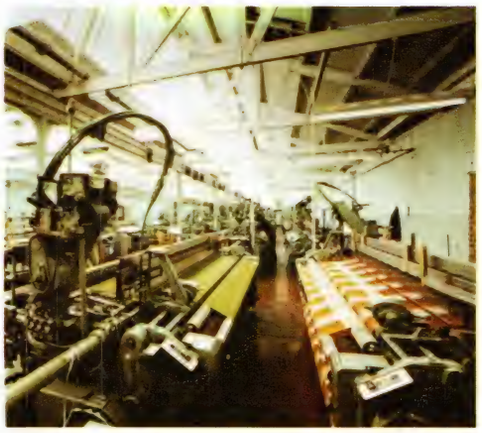
Increasingly, new technologies are being developed in specific areas of New Zealand expertise. These include agricultural equipment and new spheres such as the manufacture of base pharmaceuticals. Because of the small size of the domestic market, New Zealand industry has also acquired expertise in short production runs so that, once a buyer's specialised requirements are known, a versatile manufacturing capability can be applied to meet them. This has not, however, impaired manufacturers' ability to fill large orders.

The export drive is a combined effort between the private sector and the Government whose various agencies make available the necessary practical assistance and expertise to smooth the way for a successful business arrangement between New Zealand suppliers of goods or services and their overseas clients.

For example, the technical help supplied by the Standards Association informs exporters of the local standards and regulations applying to their product, such as packaging and labelling, in any international market. These requirements are, therefore, met in New Zealand and overseas importers can have confidence in the product they are buying.

The Trade Services Division of the Department of Trade and Industry plans and implements export promotion policies as well as providing a link between exporters and the New Zealand overseas trade posts and assisting trade visitors and trade missions.

The Department of Trade and Industry also plays an active role in overseas promotion of New Zealand products by co-ordinating company participation in international trade fairs which attract a specialised audience and provide opportunities for marketing present and planned products. Similarly, in-store promotions, organised by retailers with co-operation and assistance of overseas based New Zealand Trade Commissioners, allow manufacturers to gauge the appeal of their product to foreign consumers. The staff at New Zealand's overseas trade posts provide information and advice to potential customers. The Trade Commissioners in any of these offices — listed at the back of the booklet — will be pleased to answer any query regarding New Zealand exports and investment opportunities. They will also assist customers to contact a New Zealand manufacturer who can supply the product required.



DFC...the people behind the people developing New Zealand

When people need finance, or advisory services, to assist with the development of New Zealand industry, they call Development Finance Corporation of New Zealand (DFC).

DFC Services assist: export expansion and greater use of natural resources; regional development; industries that replace imports; and new technology.

For example in Otago alone, during the last five years, DFC has invested an annual average total of $5 million in development projects of which an average $3 million annually has been directly associated with exports.

Throughout New Zealand, in the same period, more than $220 million has been invested in over 1000 projects because that's DFC's job helping finance the country's industrial development.

dfc Development Finance Corporation of New Zealand

Development Finance Corporation

see the index for address details

The lion rampant in the business

National Insurance protection is part of the roading and construction industry.

There is one in every industry: one very progressive company whose staff and representatives are more helpful than their competitors. Who respond faster. Work harder, and meet their obligations on schedule.

In the insurance business, that Lion rampant is The National Insurance Company of New Zealand Limited — a Dunedin based company that trades internationally, but still retains a strong sense of community with its focus on the activities of the people and companies they serve.

National Insurance extensively covers farming interests.

Sharing the load with Otago business and exporting companies is the National policy.

The contribution of National Insurance to this export book is evidence of their intent — to constructively assist Otago companies.

Estate and trust administration, merchant banking, investment in company debentures, notes and shares, property development, life and property insurance are all part of National's broad financial base. This diverse financial structure stands behind every National Policy and is a guarantee for policy holders. They have supported individual initiative, enterprise and innovation. National joins its policy holders as a partner. Can you think of a better company to share the load with?

The National Insurance approach to business management blends modern technology with proven commercial practice to create a

Wrightson NMA exporters of livestock, Donaghys Industries Ltd cordage and food exporters and Air New Zealand freighters of Otago exports are National Insurance clients.

Supporting heavy engineering in Otago.

Insurance and investment within the textile industry.

Supporting the exporter

profitable environment for expansion so vital for the well-being of the province and country.

The National Insurance is an exporter in its own right, in the field of "invisible exports". Over seventy per cent of its income is from its operations outside New Zealand, thus earning this country valuable overseas exchange.

The National supports some of the largest exporters in New Zealand with insurance and other financial services.

More than an insurance company — a broadly based financial organisation

National Insurance is more than its name implies. Its operations cover a wide range of financial activities in a major or minor degree, from estate administration to merchant banking.

Over the years National Insurance has developed steadily with consistent profitability and controlled growth. In the last five years development has been more pronounced with several acquisitions. As a result the Company is now one of the leading New Zealand owned multinational Companies.

In spite of its diversified connections, the main area of operations continues to be general insurance and here the Company's performance over the years has been outstanding by industry standards.

National Insurance has a reputation for a conservative attitude to its underwriting policies and this has been reflected in the stable profit record of the company having not recorded an underwriting loss since 1895. In the latest year National Insurance reported a profit in excess of $5 million, of which the underwriting profit was $746,372.

As with most insurance groups the Company has a large investment portfolio totalling in excess of $60 million made up of investments in companies, mortgages, Government and Local Authority securities. The total assets of the Group now exceed $100 million.

An investment operation has to be flexible, able to take instant advantage of any change in market conditions. For this reason the National maintains a financial interest in various companies whose activities include property development, leasing and merchant banking. Revenue from these sources is at present not a very large part of the groups income but indicated trends and market changes could make these companies significant contributors in the future. The companies are as follows:

Estate & Trust Administration: The Trustees Executors, a wholly owned subsidiary, administers funds in excess of $100 million. These assets comprise just about anything its clients could own — farms, houses, flats, livestock, mortgages, shares, Government stock etc etc.

Property Development: The National holds one-third of the share capital in City Realties Ltd. a Wellington-based property development company.

Merchant Banking: The National has been associated since its establishment in New Zealand with Chase NBA New Zealand Group Ltd. The N.Z. associate of the international merchant bankers, and at present has a 17.7% share-holding.

Finance. In January of this year, the National Group acquired a 30 per cent shareholding in Trade Credits Ltd., an Australian listed public company involved in finance — mainly leasing, real estate, and mortgage business.

Building Societies: Building Societies (known as savings and loan associations in the U.S.), are a popular means of saving and investment. In New Zealand there are 64 building societies, with over 450,000 members, total assets of $640 million which provide finance for home ownership to the extent of over $123 million per year.

National Insurance has an association with the largest of these: The Northern Terminating Building Society/Northern United Permanent Building Society.

In certain areas office facilities are shared, to the benefit of each organisation.

National Insurance is international in scope

Although National Insurance has its head office in Dunedin, Otago, its operations are international. Less than 30% of the Company's income comes from New Zealand sources, the balance is from its global operations.

This has been the case almost right from the start of operations in 1873. Within weeks of the formation of the company, a branch had been opened in Melbourne, Australia. In 1877 the then General Manager was instructed by the board to go to San Francisco to establish branches and agencies in California, and by 1881 there were 101 sub-agencies established. In 1883 the General Manager spent nine months overseas in Britain returning through Japan, China and India. As a result of this trip business was begun in Calcutta, Singapore and Rangoon.

During this period of expansion offices sprang up all over Britain. Manchester was followed by Glasgow, then came Dublin, Liverpool, Birmingham, Leeds, Bristol and Newcastle. Premium income soared, and as the money poured in, new areas were conquered. First it was France, then Germany, then Denmark, Norway, Sweden and finally Russia.

The depression of the 1880's put a stop to this heady expansion and drastic retrenchment occurred. The company had disposed of all its interests in Britain and Europe by 1890, and a period of consolidation followed.

National Insurance is now in Australia, Fiji, London, Hong Kong, Singapore, and the Pacific Basin. In Australia the company in 1976 acquired all the assets of Australian Equitable Insurance Co. Ltd (AEI) a Sydney based company with branches in most Australian states.

The Company has offices in Sydney, Newcastle, Brisbane, Adelaide, Launceston, Melbourne and Perth and has 35 other offices in small provincial towns, giving a very extensive network. Australia is now responsible for over 60% of the company's net premium income.

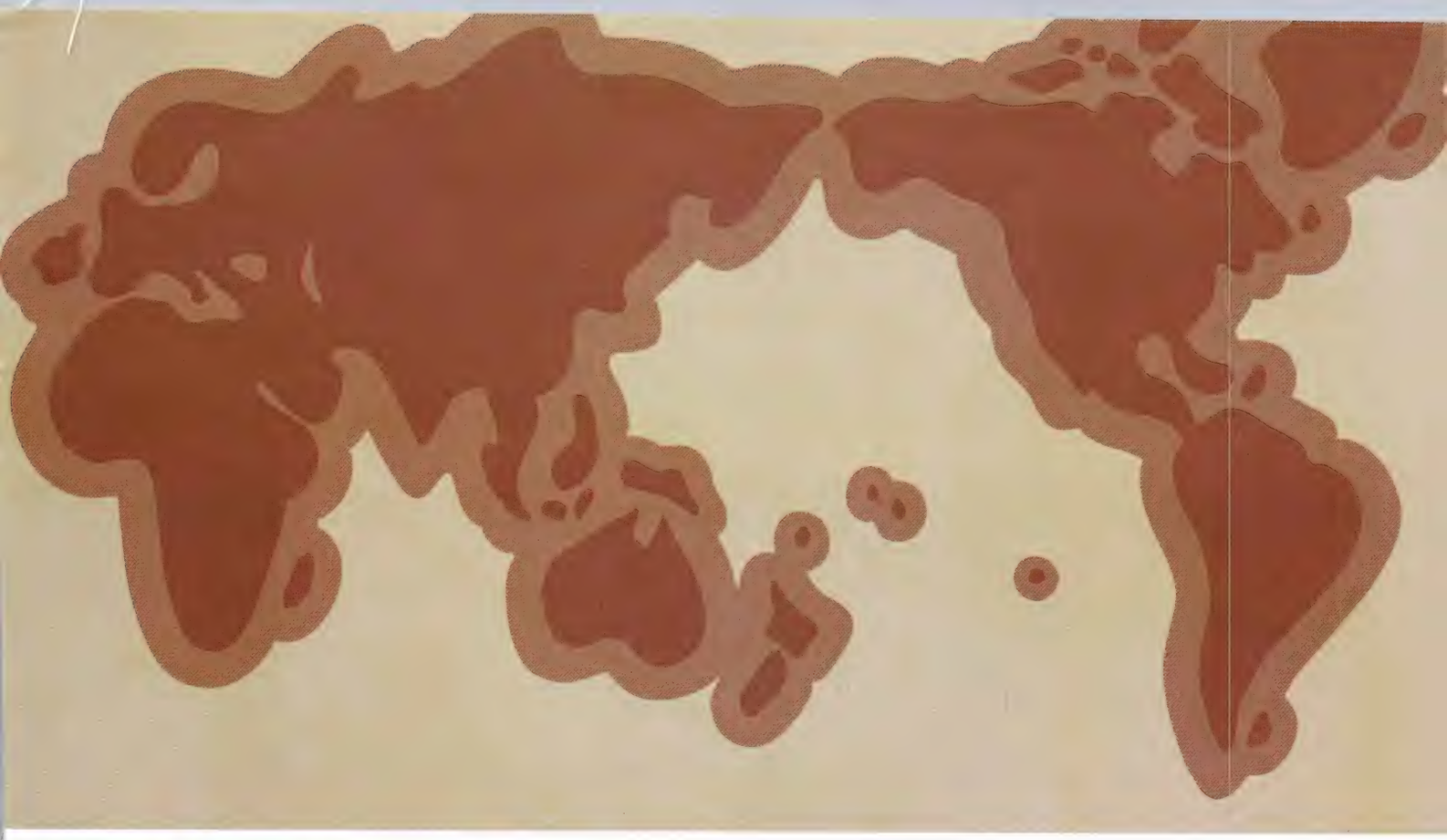
In Fiji the National group's operations are undertaken by a wholly owned locally incorporated subsidiary: The National Insurance Company of Fiji Ltd. Premium income has increased dramatically over the past few years and substantial investments are being made in Fiji government and semi-government authorities. In addition the local Company has a 7½% shareholding in the recently formed Fiji Reinsurance Corporation.

National Insurance

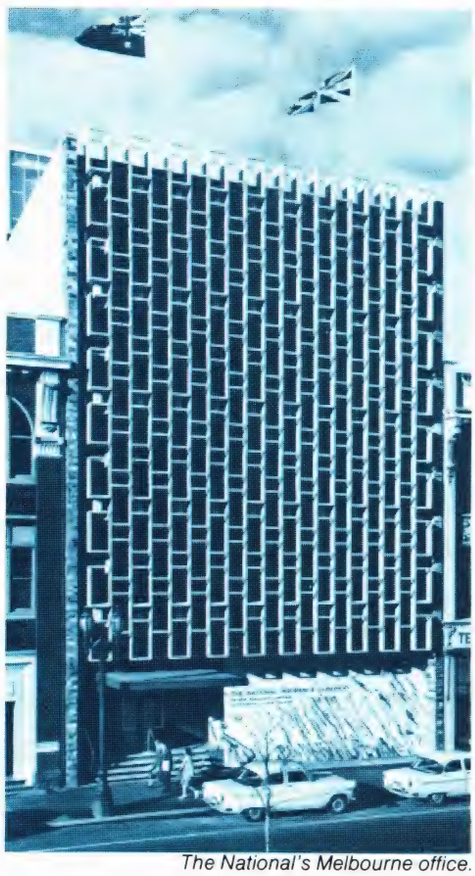
More than an insurance company

Serving the people of Otago with insurance.

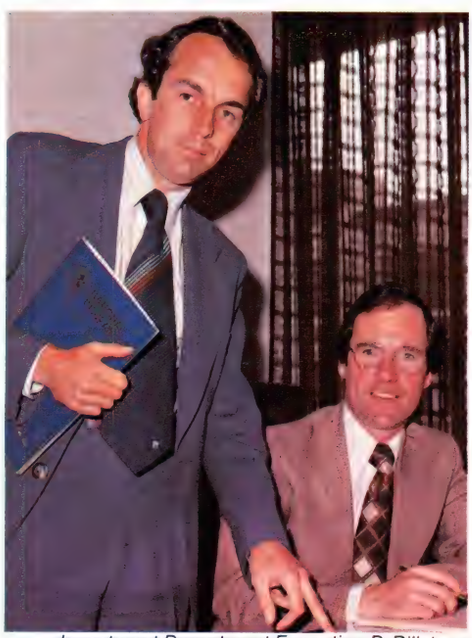
Estate planning through the Trustees Executors



The National is international in scope



The National's Melbourne office.



Investment Department Executive D Rillstone & R. Hendry

In Hong Kong the group has an agreement with MUA Agencies Ltd. to write business on its behalf. MUA Agencies is a subsidiary of the C.Y. Tung shipping empire.

In Singapore the group is a member of an underwriting pool administered by Reinsurance Management Corporation of Asia Ltd. The pool consists of 10 participants — one from most of the countries in the Asian region. The National Insurance represents New Zealand. The Company is also a shareholder in the I.C.S. Reinsurance Company of Singapore. The Singapore market is expanding as a reinsurance centre and an increasing volume of business is being placed there.

Samoa is an unique area in the Company's sphere of operations. The National Insurance was asked to manage a new Insurance Company formed by the Western Samoan Government. The Company is known as National Pacific Insurance Ltd and operates in Western Samoa, American Samoa, Tonga, Niue, and other Pacific Islands.

In London the group operates through an underwriting company, Dunedin Underwriting Agency (H.M.T.) Limited. Associated in this venture are the Lombard Insurance Company Limited of Hong Kong, the Cornhill Insurance Company Limited of London, and the C.M.L. Fire & General Insurance Company Limited of Australia.

As with the Singapore pool, Dunedin Underwriting Agency accepts the insurance on behalf of member companies.

In the international world of insurance the traffic is two way, thus National Insurance acts in New Zealand as Managing Agents for the C.M.L. Fire & General Insurance Coy., and Attorneys for the Nippon Fire & Marine Insurance Company Limited of Japan.

For centuries, the lion has held a distinctive historical role in tradition. It represents without question, the hallmark of quality, an approved emblem guaranteeing an absolute standard against which all else may be measured. In those early days in 1873, when The National Fire and Marine Insurance Company of New Zealand, as the company was originally known, was formed, with a board of directors reading like an Otago Business Who's Who, little did those Directors realise when picking the Lion as a symbol, the mantle that this symbol would demand from the Company, and all who served in it.

105 years later the symbol stands the test of time . . .

The National Insurance Co. of New Zealand Ltd.

see the index for address details

This man and his family have a special interest in the Otago Container Terminal — not only because he works there, but because his savings helped finance it.

From the time it was founded in 1864 the Otago Savings Bank has been owned by its depositors . . . the people in urban and rural Otago. The OSB was established to encourage small savings and to use the deposits for the benefit of the community in a variety of ways. Profits are returned to the community by way of Grants to sporting or cultural groups.

Today as a large and rapidly growing organisation with depositors funds well in excess of $110,000,000 the Otago Savings Bank still fulfills its primary aims. It supplies mortgage finance to home purchasers as well as to industry. The Bank actively supports and encourages the growing export drive which is a feature of Otago Business today.

Substantial sums have been invested in the development of the container port which is the key to overseas trading. Support has also been given to numerous industrial and commercial organisations of proven ability who are expanding their efforts and broadening their horizons by supplying markets around the world.

The bank that belongs to the people

assists the Export Drive

Otago Savings Bank
The Bank that does more for Otago

Self help is the way to success and the Otago Savings Bank is proud to be associated with the business community in the province which is building on traditional skills to provide new outlets and markets.

Where Otago has a need the bank provides every possible help to foster and encourage progress.

Bank of New Zealand. Banque de la Nouvelle Zélande. Bank Neu-Seelands. Banco de Nueva Zelandia. Bank van Nieuw Zeeland.

BNZ — known round the world

The Bank of New Zealand is 100% New Zealand owned — the only trading bank in the country in that category. And it has a worldwide reputation for knowledge and service of markets. Members of its international staff are constantly visiting bankers and business houses around the globe. If you want to talk business with New Zealand, you talk with Bank of New Zealand.

Bank of New Zealand
Here when you need us

The largest bank

Bank of New Zealand is by far the largest commercial bank in the country. It has more than 400 offices and handles approximately 40% of the total commercial bank business, with $2000 millions in deposits and $1500 millions in loans.

Importing and exporting

For more than 100 years, Bank of New Zealand has been handling a large proportion of the country's import transactions. To complement the vast store of experience this has brought, the Bank has a Market Intelligence network which keeps it up with events from hour to hour. In the field of exporting, the Bank provides assistance to companies both large and small. Its help ranges from market development through its trade development service to final shipment documentation and funds collection. The Bank can also provide domestic off-shore finance to assist traders, including medium or long term loans for machinery or fixed assets, or the financing of individual shipments.

Helping overseas investors

Conditions for investment by overseas interests in New Zealand are favourable because of transfer of profit and repatriation of capital are freely permitted, with a minimum of formality. In assessing investment proposals the authorities look mainly at the following factors:

1. The acquisition of new or improved technology. 2. Development of local resources, raw materials and human skills. 3. Potential for new or increased exports or export substitution. 4. Compatibility with the preservation of the best possible social and physical environments.

Interested in knowing more?

The Bank of New Zealand can help. As part of its information services the Bank issues a wide variety of publications concerning New Zealand trade, some of which are illustrated here. If you need these or any other information, contact any branch of the Bank of New Zealand, in this country or overseas.

see the index for address details

Getting it all together

Alexandra Concrete Ltd supply high quality aggregates for production of concrete block and pipes, and mixed concrete. **Alexandra Transport Ltd** carry out cartage operations throughout the South Island transporting local products to main centres. They specialise in serving the farming industry with long distance haulage.

Road Paving by Fairfield Asphalt Ltd

Fulton Hogan roading provides the vital link throughout Otago Province — bringing together town and country, city and container port. Otago has some of the finest roads in the country thanks to Fulton Hogan expertise.

Fulton Hogan Ltd started in 1935 as a road construction company. In less than five decades, vigorous leadership and an outstanding work force have thrust it through the expanding years to its present position as a leader in the fields of steel and mechanical fabrication (for forestry and other industries), civil engineering, road construction, interprovincial and local cartage, aggregate production, refuse collection and disposal and property development.

Evidence of Fulton Hogan activity is South Island-wide — they participated in the building of the Otago container port and fabricated the huge steel wood-chip structure at Port Chalmers. Fulton Hogan's operations also include aggregate production plants in Dunedin, Balclutha, Alexandra and Cromwell to serve the roading and concrete industries.

Welding of Steel Pipe

The right concept for today and tomorrow

Fulton Hogan's efficiency and flexibility have proven the wisdom of grouping companies together which complement each other. They can place the right material, service or equipment at the right location at the right time with resulting economies that benefit both company and the client. The Fulton Hogan Holdings Limited group of companies is structured to maximise efficiency and minimise lost time. They have a proven reputation with Government, local body government, boards, authorities, corporations and private industry — they make a habit of getting it all together — efficiently.

Specialities of companies within the group

Fairfield Asphalt Ltd manufacture asphalt and bituminous mixes and are also paving contractors for highway construction, industries and sporting and recreational facilities.

Part of the fleet of trucks and machinery

Radford Transport Ltd have similar activities and are involved in contract work for the Clutha Power Development.

Maxwell Bros. Ltd are excavating experts specialising in building excavation and general earthmoving; also general cartage services. Another speciality is refuse removal and disposal.

Cossens & Black Engineering Ltd supply mechanical services, auto-electrical servicing, vehicle body construction and painting. Also steel fabrication, construction and erection.

Fulton Hogan Ltd specialise in quarrying and the production of quality aggregates, and also the construction of major and secondary roading.

Bitumen Sales Ltd are manufacturers and blenders of bituminous products used in the building and road construction industries.

Fulton Hogan Holdings Ltd can get it all together anywhere. Roads and bridges can be exported — or rather Fulton Hogan's resource and expertise in engineering and earth moving are available for use anywhere in the South Pacific, or indeed the world.

Fulton Hogan Holdings Ltd., Dunedin

see the index for address details

Site of proposed new works at Weston, Otago

Modern Otago exports to the world — from an impressively solid base. Its transport uses airport runways and motorway bridges, its planning is done in multi-storey buildings, manufacturing and engineering activities are carried out in factories and foundries, back-up comes from people in Government and university buildings. New Zealand Cement Holdings provide the vital ingredient for practically every form of civil engineering and construction. That ingredient is cement. Its use is universal, from massive hydro-electric dams to bus shelters or office floors. The contribution made to New Zealand society by New Zealand Cement Holdings is both wide-spread and essential.

Wider horizons than New Zealand

Although New Zealand is remotely situated in the South Pacific, New Zealand Cement Holdings maintains strong links with the cement industry throughout the world by means of a technical agreement with the Holderbank Group of Companies based in Switzerland.

The Holderbank Group is also a major share-holder in the Company and with this strong connection, New Zealand Cement

Providing the solid base for progress

Air New Zealand hangar at Christchurch International Airport

Holdings is able to exchange information with over 30 cement companies operating more than 80 manufacturing plants in various parts of the world.

The Holderbank Technical Centre has available research and development facilities which are rated among the best in the world.

Manufacturing plant

New Zealand Cement Holdings operates two plants, one at Burnside near Dunedin, and the other at Westport on the West Coast of the South Island. The Westport works is the Company's largest and most modern, and was acquired by New Zealand Cement Holdings in 1963. Production capacity was doubled in 1964/65 and further expansion in 1975 increased capacity by another 175 000 tonnes. The combined capacity of the two works is now 575 000 tonnes per year. The Company markets under the brand names of "Guardian" and "Milburn".

Faith in the future

Planning for the future is an integral part of the operations of New Zealand Cement Holdings and in order to take care of the future cement requirements of the country a decision was taken late in 1977 to proceed with detailed planning of a new cement works in Weston in North Otago.

The Company already operates a lime works in the area where a unique deposit of limestone is being worked and geological exploration over recent years has confirmed the presence of large quantities of coal.

It is expected that the proposed works will involve capital expenditure of some $275,000,000 and will require the upgrading of a railway line and the re-activating of a deep water harbour.

The building and operating of a cement works in this area will provide a considerable boost to the North Otago community.

Consideration for the environment

New Zealand Cement Holdings are conscious of their responsibility to protect the New Zealand environment — one of the least polluted in the world and one which New Zealanders are determined shall remain in this pristine state. Shown is the Company's Burnside Works which (untypically) is situated in a Dunedin suburb. The Company has spent a lot of time and money to eliminate any nuisance to neighbouring residents and their efforts have been recognised by the award of an Environmental Merit certificate. And, although the Westport Works are located in a comparatively isolated area, they too have had electrostatic filters installed on the exhaust stacks at a cost of $1,000,000 to minimise the risk of dust emission.

Construction of Upper Waitaki Power Project

Power station Upper Waitaki Project

A well integrated operation

New Zealand Cement Holdings' operation is thoroughly integrated from ownership of the

land from which the raw material is won through the complete manufacturing processes to the operation of its own bulk distribution system.

Transport is difficult and costly in New Zealand which has a very long coast line. Fortunately, nearly all the main centres of population (and therefore, of building activity) are sited on these coasts so that the Company is able to distribute a large proportion of its product by sea.

The Company operates two ships, the M.V. "Milburn Carrier" and the M.V. "Westport". The Westport has twin 1800hp diesel engines driving a single variable pitch propeller through a gearbox, an arrangement which provides economy of operations and great manoeuvrability. Two generators can also be driven through the gearbox, enabling the ship to discharge without the use of shore power.

The Company maintains cement silos at most major ports and services the local markets from these with a fleet of bulk cement trucks.

The skills of people

Even though cement production is very capital intensive, the day to day operation of New Zealand Cement Holdings requires more than just plant and machinery. It requires the varied skills of many people. People like geologists, to locate and assess the suitability of raw materials; machine operators and labourers to mine these materials; engineers to construct and maintain manufacturing plant; technicians to control product quality; officers and seamen for the ships; drivers for the trucks; and administrative staff to control the whole operation.

Civil engineering

An indication of the scale of power projects for which New Zealand Cement Holdings provides the raw materials, is given by the nearly completed Upper Waitaki Power Scheme (described on pages 96-97). Briefly this project involves the linking together of three of New Zealand's largest lakes by giant canals, and channelling the water through four power stations which will produce a generating capacity of 848,000kW. Over 120,000 tonnes of cement have been used on this project. New Zealand Cement Holdings are also involved in the building of solid fuel power stations and geothermal stations using volcanic steam.

Westport works

Burnside Works, Dunedin

Chimney structure at Christchurch International Airport

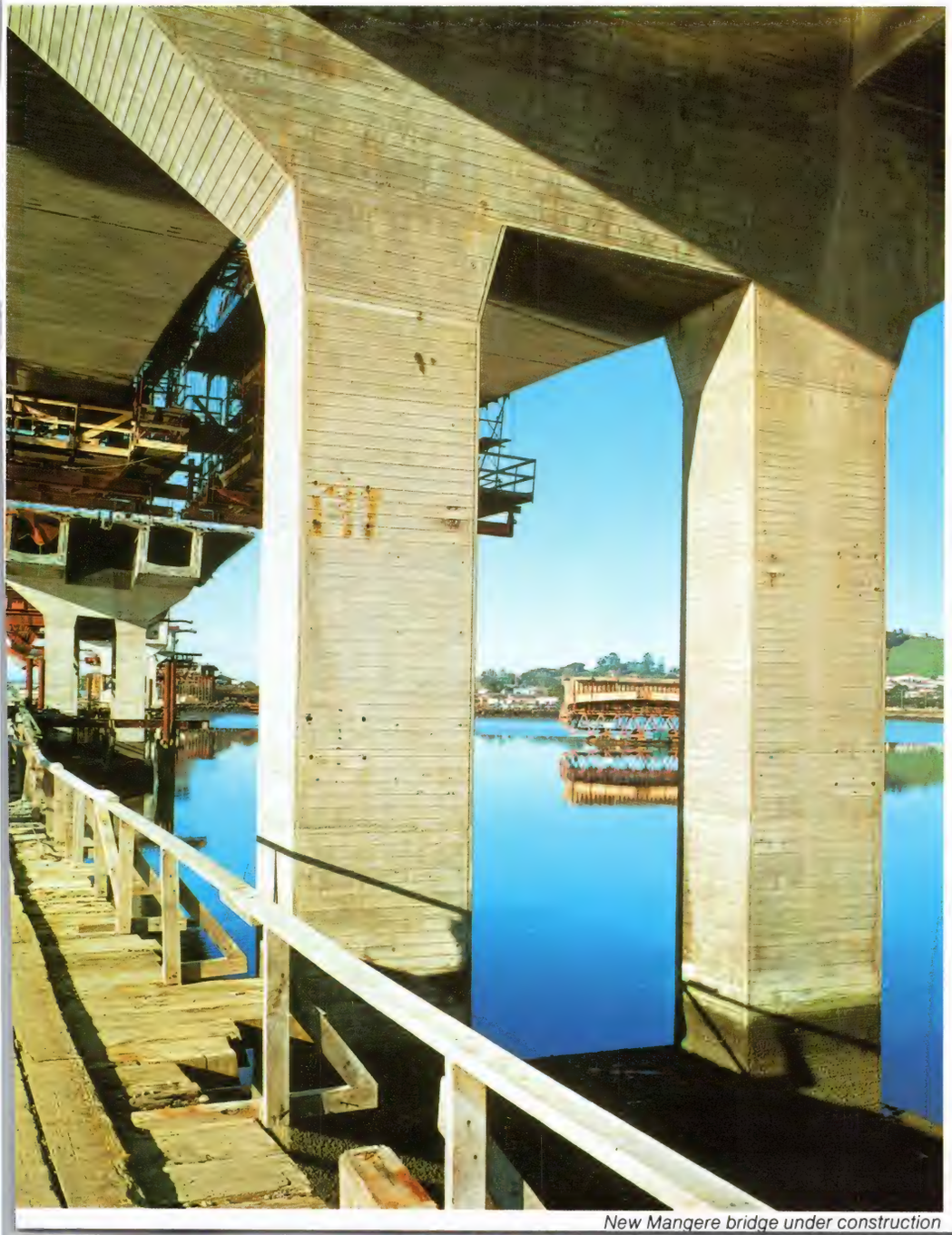
Concrete is the normal construction material for both road and rail bridges. This has been the case since the early 1930's when the first concrete bridges were constructed. However, fashions in construction have changed since those days. Forty years ago long bridges were typically of multi-arch construction on conventional piers, nowadays the trend is for very long (and sometimes curved) pre-stressed spans supported at intervals by single pylons.

Commercial and industrial building

Because the country is located astride a major geological fault line, all building construction in New Zealand is subject to earthquake risk.

Design for earthquake construction is a technique in which local architects and engineers have accumulated considerable experience and expertise. Consequently most New Zealand office buildings are of concrete construction, usually with columns and beams but both lift slab and tilt slab are popular.

MV Milburn Carrier, bulk cement ship



New Mangere bridge under construction

House building

Two of the most widely used building materials for houses in New Zealand are concrete bricks and hollow blocks. Over 36,000,000 are produced annually. (A total which exceeds that of clay brick production).

Traditionally houses in New Zealand have been constructed on a ring foundation with suspended timber floors. However, research and development carried out by the New Zealand Portland Cement Association, of which the Company is a member, has encouraged the use of concrete floors, and over recent years this method of building houses has been accepted as being the most efficient and effective.

Another vital ingredient

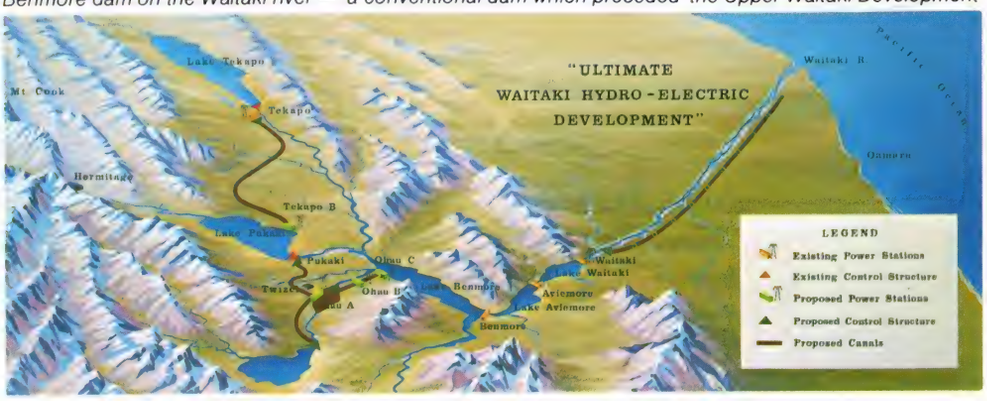
In addition to supplying cement to the nation, New Zealand Cement Holdings offer manufacturers agricultural and industrial lime which is used in road foundations, the meat freezing industry, steel works, sugar refining and pulp and paper manufacture.

N.Z. Cement Holdings Ltd.

see the index for address details

The new concept

Benmore dam on the Waitaki river — a conventional dam which preceded the Upper Waitaki Development



Tucked under the lee of the Southern Alps, and straddling Otago's boundary to the north, is New Zealand's largest hydro development. The Upper Waitaki Power Development is an extension of the existing network of conventional dams and powerhouses which have been constructed in the middle reaches of the Waitaki River.

Between them the Waitaki, Benmore and Aviemore powerhouses have an output of 865 megawatts.

To meet projected power demand the Ministry of Works and Development was commissioned to develop the Upper Waitaki. The scheme is relatively simple in concept, linking Lakes Tekapo and Pukaki, using the difference in height between these lakes to drop water through a power station, increasing storage, then channelling the combined flows from the two lakes into a canal system.

One of the most critical aspects of the project was the cutting of a 25 kilometre canal so that discharged water could be used again. The largest collection of earthmoving machinery in the world was assembled. In some places massive cuts through hillsides were needed, in others the canal had to be raised above the surrounding terrain; and in others again a combination of cut and fill was required.

Over its whole length the canal, which is lined with compacted clay material forming a waterproof barrier, drops only three metres. As a result, precise surveying techniques which took into account the curvature of the earth were needed. Few other countries have attempted this type of development and the designers studied a large irrigation race to establish guidelines. Once this major canal was finished a computer model was composed and this was used to design the other canals in the scheme.

Ruataniwha dam site construction

50-ton dump trucks

Tekapo B control room

At the end of this first canal the water drops down twin penstocks to Tekapo B powerhouse on the shore of Lake Pukaki. This lake is the focal point of the Upper Waitaki Scheme. Storage capacity has been trebled by building a large earth dam across the outlet and — a most unusual feature — the raised lake completely surrounds the Tekapo B powerhouse, which has a capacity of 160 megawatts.

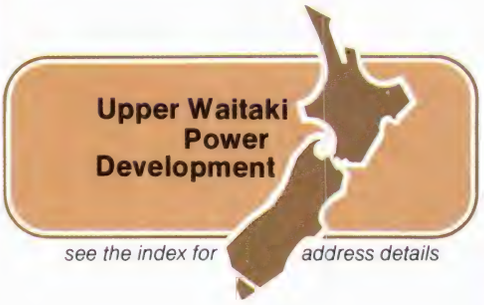
From the lake the water flows down another canal, 80 metres wide and 12 kilometres long. It is met by water from another canal (from Lake Ohau) and then the combined hydraulic resources of the Waitaki River flow down four penstocks into another power house (264 megawatts). The water then flows into Lake Ruataniwha, which has been designed as a recreational lake. It will have facilities for sailing, an international rowing course, a camping ground and a wildlife refuge. This 343 hectare lake will be created by an earth dam and concrete spillweir.

The Ministry of Works and Development

But the water of the lake will also be used for generating still more power at another two stations each with an output of 212 megawatts, before going on to Lake Benmore.

When the scheme is complete in the mid-1980s all stations will be operated by remote control from a computer in the switching station at Twizel. Two-thirds of the river will have been harnessed for power generation, leaving only the lower reaches for future use, probably through a series of deepened channels.

Whatever happens at that stage will not match the epic proportions of the unique Upper Waitaki Power Development.



see the index for address details

The illustrations are of models which show four stages in the construction of the planned Clyde dam, which will be the biggest concrete gravity dam in New Zealand.

The multi-purpose project

After 15 years of talking and planning, Otago is at work on its largest ever development project, designed to wrest huge amounts of hydro-electricity from the Clutha and Kawarau rivers, and to irrigate extensive areas of parched farmland. Clutha Valley Development is the name coined for the $750 million project, which is already providing spin-off benefits for the whole province.

Clutha Valley Development will: build five hydro dams with a generating capacity of 1515 MW, add up to 12,000 hectares of new irrigation and boost existing schemes, turn the tiny borough of Cromwell into a new town, build new highways, improve social, educational and recreational opportunities, stimulate tourism and give a general 'shot in the arm' to the Otago economy.

Clutha Valley Development, because of its wide scope, also has negative aspects: 2374 hectares of productive land will be flooded. Half of this is classed as "good", and it includes 107 hectares of orchards. About 280 people will be displaced, and there will be some loss of scenic and historic values. For some "locals", a quickening in the pace of life and the introduction of new faces and new ways may be less than welcome.

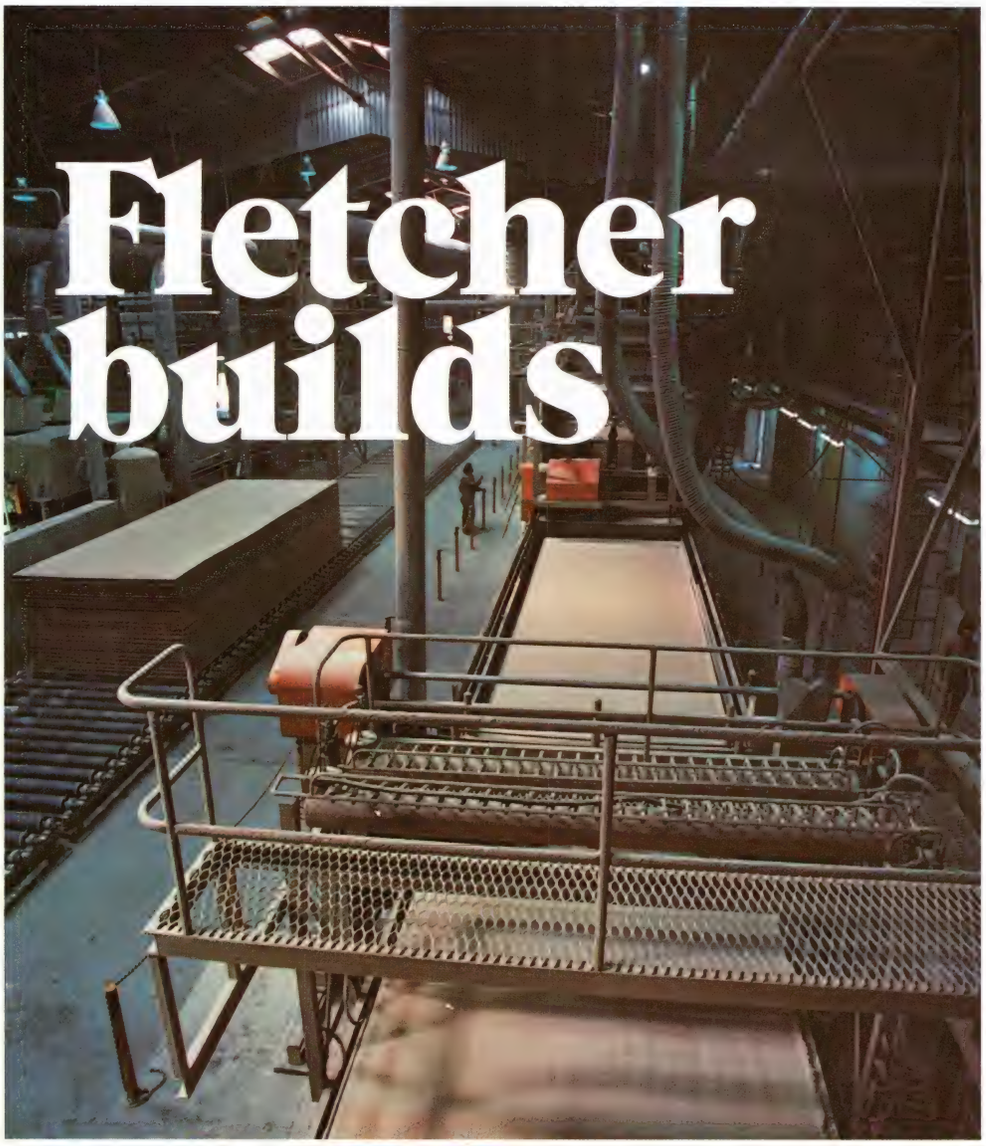
For the next few years, most construction work will be concentrated at Clyde, site of the first and largest dam, and at Cromwell, headquarters for the overall development.

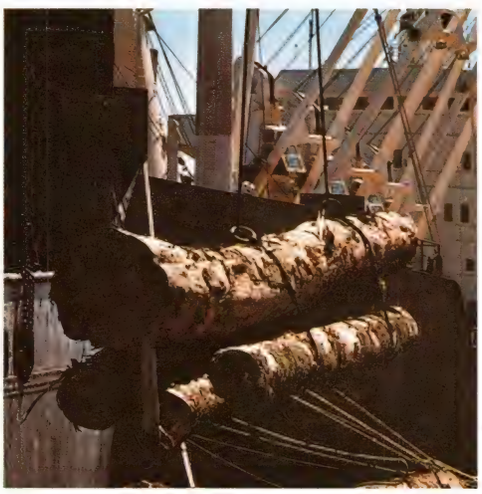
At Clyde will be built New Zealand's biggest concrete gravity dam — 64 metres from tailwater to crest, 520 metres wide and containing about one million cubic metres of concrete. It will create Lake Dunstan, a 26 square kilometre lake providing water for power generation, irrigation, frost fighting and rural water supply, as well as being available for recreational use.

Following the Clyde dam, others will be built at Luggate and Queensberry on the upper Clutha, and at two points on the Kawarau river. The Luggate dam will be of special importance for irrigation.

Part of the spin-off from the development project will be improved roads, a new town at Cromwell with three new schools and a tourist hotel, and a boost for the contracting industry. First power is expected to be generated in 1987.

Fletcher builds





The Fletcher Group of Companies had its beginnings in Dunedin in 1909 when James Fletcher (later Sir James) set up in business with Albert Morris as a cottage builder.

From these humble beginnings, Fletchers grew into New Zealand's leading construction company and diversified into manufacturing to become one of the country's biggest industrial organisations.

Although this growth led the company to base its head office in Auckland, Fletchers has always retained its connections with Otago through its construction and manufacturing activities in the province. Fletcher Development and Construction's Otago regional office is currently constructing a $40 million ward block for Dunedin hospital and has a further $12 million worth of work in Otago currently on its order books. Fletcher Agriculture is based in Dunedin and operates linseed oil extraction and Sunfield cooking oil production plants in that city. Other Fletcher companies with branches in Otago include; Fletcher Timber, Fletcher Steel and Fletcher Merchants.

Profile of Fletcher Group

The Fletcher Group of Companies operates throughout New Zealand, and in Australia, Fiji and Papua New Guinea. Work has also been undertaken in other areas of the South Pacific and South-East Asia, where the group has various construction and trading interests. Exporting and importing opportunities with other areas of the world are also actively pursued.

Fletcher Holdings Limited was formed in 1940, and has a broad base of operations and investments. Significant investments include Tasman Pulp and Paper Limited (46%), Nylex Fletcher Limited (50%) and Marac Holdings Limited (30%). Annual turnover exceeds $360 million and the group employs some 4,500 people in a variety of interests under autonomous management.

To preserve its tradition of a strong decentralised structure, the senior management of Fletcher Holdings has identified nine independent business areas, each under the control of a managing director. These are: Construction and Engineering Group (including Fletcher Construction Limited and Fletcher Development and Construction Limited), Corporate Trading Division (including Fletcher Agriculture), Fletcher Forests Limited,

The Fletcher Industries Limited (including Brownbuilt and Steel Divisions), Fletcher Residential Limited (incorporating Beazley Homes Limited), Fletcher Timber Limited, the Fletcher Trust & Investment Company Limited (participating in property ownership and joint ventures), Fletcher Wood Panels Limited and New Zealand Wire Industries Limited (87.5% owned).

Priority Given to Exporting

Fletcher Group exports have tripled over the past two years and look set to increase fourfold by the end of the current financial year.

Exports for the half-year ended September 30, 1978, amounted to $8.2 million, an increase of 22% on the previous year. With some major export sales yet to come, indications are that overseas earnings for the full year will exceed $20 million.

The Group's dramatic progress in overseas markets in recent years reflects a policy commitment to give priority to exports. Fletchers have continued to devote intensive efforts to overseas market development by such means as travel and stationing of company executives in strategic locations, as well as fostering export consciousness among employees, suppliers and business associates.

see the index for address details

One name synonymous with transportation and allied services throughout New Zealand is Brambles.

Brambles is the amalgamation under one corporate identity of companies representing every facet of transportation of goods both internal and international.

Brambles move products of every description: consumer goods, container freight, heavy machinery, personal baggage, household removals and special delivery.

International in scope and service

Brambles Freight

Brambles Freight encompasses New Zealand-wide freight forwarding by all linehaul modes — rail, road, air and sea — as well as Trans-Tasman surface forwarding.

Brambles Freight represents the complete internal door to door freight forwarding system with branches in all major centres.

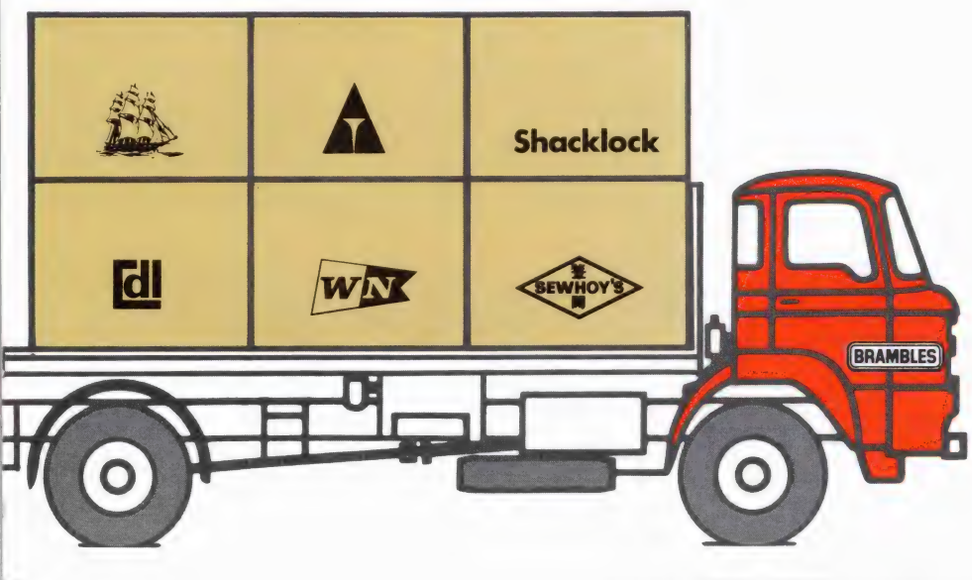
Brambles Freight co-ordinate the transportation of all consumer goods, bulk products, manufactured items, heavy equipment, livestock, foodstuffs, documents and household removals.

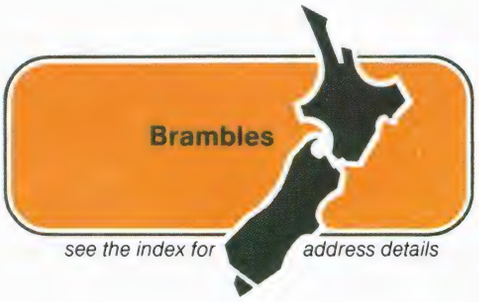
Brambles International

Brambles International offers customers the complete international freight forwarding service. Advice on all international transportation problems: processing and completing customs and export documentation; baggage; packing; loading; transportation (by air, sea, rail or road); storage, unloading and unpacking any article regardless of size, weight or complexity.

Brambles International co-ordinates freight to any destination. Problem solving international transportation difficulties: Export finance advice; Insurance; Overseas market research; Tariff and licensing specialists.

Brambles International management and staff, a phone call away in New Zealand at Auckland, Napier, Wellington, Christchurch and Dunedin, travel the globe to ensure sound advice on the how, when, why and where of international freight movements.





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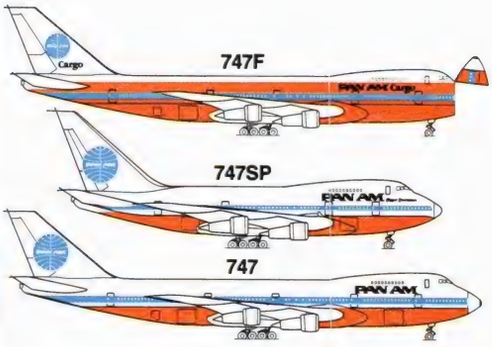


The freighter can carry a full range of containers from the five cubic metres size through to the 17 cubic metres M1 container with a maximum gross weight of 6800 kilos. It takes pallets up to the M2 with a capacity of 34 cubic metres and maximum gross weight of 11,350 kilos. The aircraft serves Hawaii and the west coast of the United States direct with same day connections for Japan at Honolulu and for Seattle and Portland at San Francisco, with European connections out on the US-west coast. Space is also available for export shipments on the five northbound passenger jumbo services each week. They carry the 10 cubic metres LD7 containers.

Over the past five years, Pan Am has helped a number of Otago firms develop export trade. Among them are Mosgiel Ltd, knitwear and textile manufacturers, Wilson Neill Ltd, merchants, manufacturers and export agents, and Taimex Trading Ltd, processors and exporters of possum skins. Pan Am carries bulk shipments of Mosgiel wool yarns to destinations in

Otago going up in the world

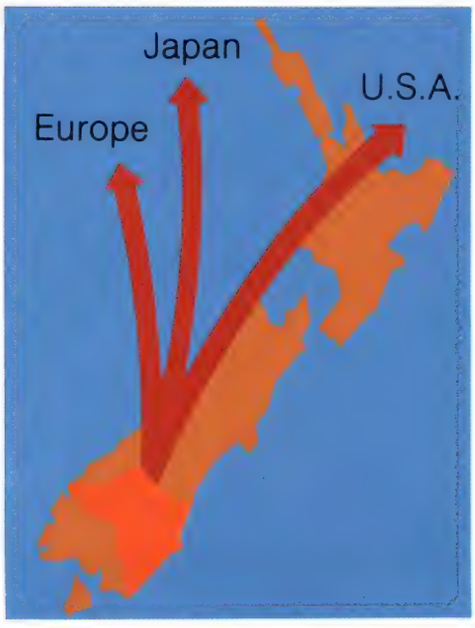
Pan American World Airways has been flying New Zealanders and hauling their exports for 40 years, longer than any other international airline.

Always a commercial aviation trail-blazer, it has the only full freighter jumbo service joining New Zealand to the rest of the world. The company's direct link with this country has always been through Auckland.

But during the 1970's, Pan Am cargo sales representatives have plunged southwards looking for new business, shrewdly aware of the enormous export potential of the South Island.

The geographical isolation of Otago has not deterred the company. Cargo staff have co-ordinated road, rail, sea and air transport between the southern province and Auckland International Airport from where the 747 freighter leaves each Tuesday morning to tie in with other Pan Am services round the world.

PAN AM Clipper Cargo



North America, as well as textiles to New York and garments to Japan, in quantities of several tonnes.

Large, diversified Wilson Neill ships possum skins to Europe and sheep skins to Japan, and Taimex Trading sells possum skins in bulk lots of three to four tonnes at a time to United States and European buyers. Pan Am not only instigated commodity rates for possum skins, it has co-ordinated trucking and other transport links between Otago and Auckland and also among destinations in North America and Europe for all types of cargo.

Enjoy a thrilling jet boat ride down Otago's famous Shotover River – one of the richest gold bearing rivers in the world

Friendly people, eye-catching scenery, exciting leisure activity, sporting challenge — these are just a few of the reasons for visiting New Zealand. Our unusual, captivating South Pacific hideaway reveals many scenic wonders as your visit unreels. You don't just travel New Zealand, you explore it.

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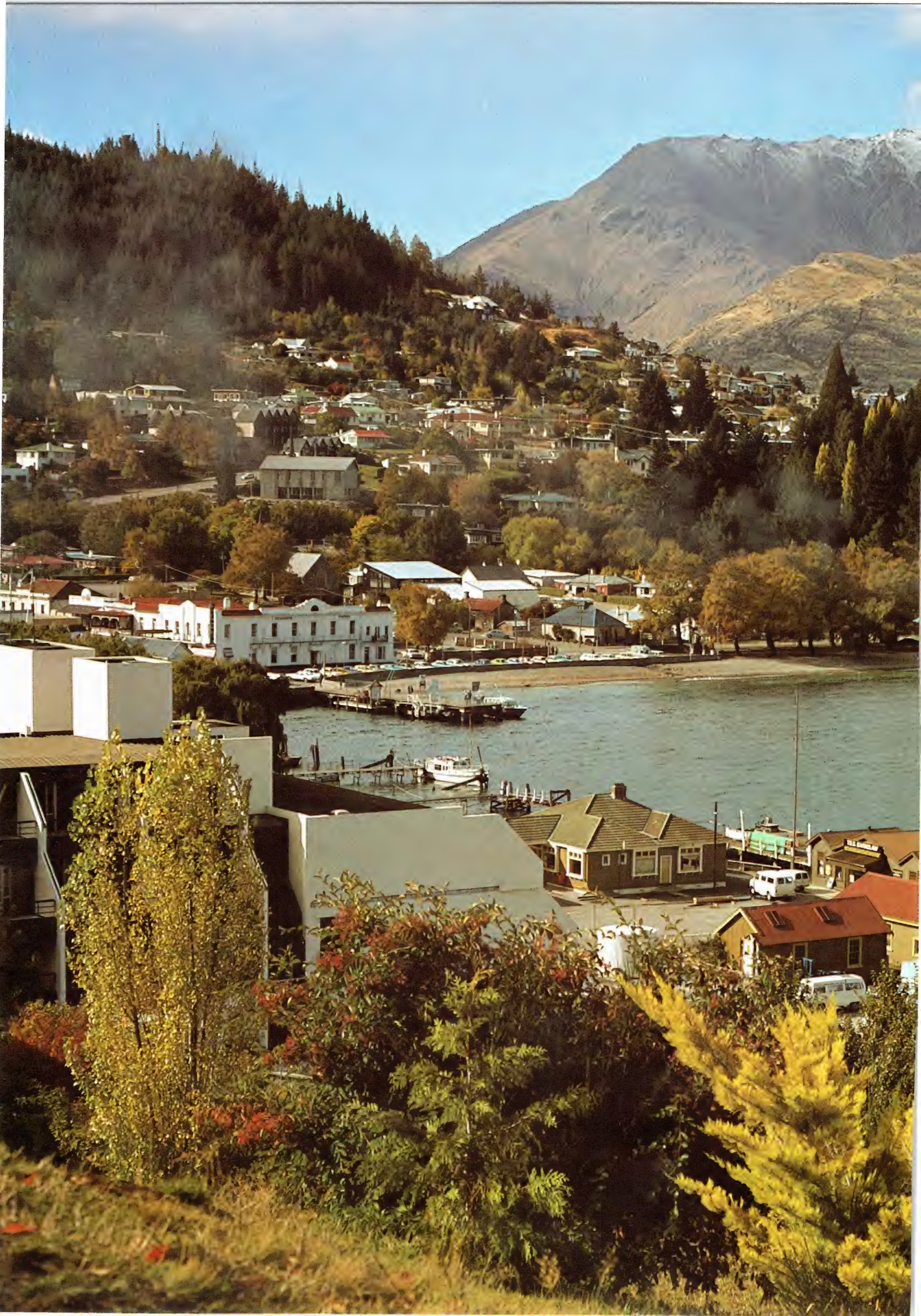

Fit for a Queen

Queenstown received its name because the pioneers believed its site was "fit for a Queen". With sparkling Lake Wakatipu and its background of mountains to delight them, today's tourists will readily agree.

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Cadbury Schweppes Hudson Ltd., Dunedin, New Zealand. Street Address: 30 Castle Street, Dunedin. Post Office Box: 890. Telephone: 741-126. Telex: NZ5721. Cable: "Cocoa". 52 53 54 55

Otago Milk Industries Co-op Ltd., Dunedin, New Zealand. Street Address: Logan Point, Dunedin. Post Office Box: 204. Telephone: 773-516. 56

The Bell Tea Co. Ltd. Dunedin, New Zealand. Street Address: 15 Hope Street. Post Office Box: 463. Telephone: 771-856. Telex: NZ21269. Cable: "Norbell". 57

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McSkimming Industries Ltd, Dunedin, New Zealand. Street Address: OSB Building, Moray Place, Dunedin. Post Office Box: 5340. Telephone: 778-620. Cable: "Waikiwi". 64 65

Timbercraft Industries Ltd, Dunedin, New Zealand. Street Address: Corner Halsey and Jutland Streets, Dunedin. Telephone: 778-896. Telex: "Manufac" NZ5613. 66

V. H. Bennetts & Co. Ltd. Street Address: 20 Crawford Street, Dunedin, New Zealand. Post Office Box: 365, Dunedin. Telephone: 778-984. 66

Bayley Tomkins Hedges, Green Island, Dunedin, New Zealand. Street Address: 147 Main South Road, Green Island. Post Office Box: 13. Telephone: 882-085. 67

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Dept. of Lands and Survey. Street Address: Charles Fergusson Building, Sydney Street West, Wellington. New Zealand. Private Bag, Wellington. Telephone: 735-022. 70 71

Primary Producers Co-operative Society Ltd. (Registered under the Co-operative Companies Act 1956) New Zealand based. Street Address: Harvest Court, 218 George Street, Dunedin, New Zealand. Post Office Box: 941. Telephone: 773-980. Telex: NZ5675. Cable: "Defiance" Dunedin. 72 73

Defiance Processors. A fully owned subsidiary. Street Address: 161 High Street, Dunedin, New Zealand, also 53 Main South Road, Burnside, Dunedin, New Zealand. Post Office Box: 941. Telephone: 773-980. Telex: Defiance NZ5675.

U.K. Based Defiance Meats (NZ) Ltd. A fully owned subsidiary. Street Address: 11/12 West Smithfield, London EC1. Telephone: (01) 2485226. Telex:889030. Cable: "Deflon".

Taimex Trading Ltd., Dunedin, New Zealand. Street Address: 105 Lower High Street, Dunedin. Post Office Box: 1341. Telephone: 770-041. Telex: NZ5210. Cable: "Market". 74

Otago Stock Agents and Woolbrokers Association, Dunedin, New Zealand. Street Address: Corner Manse and High Streets, Dunedin. Post Office Box: 620. Telephone: 775-970. 75

Waitaki – New Zealand Refrigerating Co. Ltd. Street Address: 58 Kilmore Street, Christchurch 1, New Zealand. Post Office Box: 1472, Christchurch 1. Telephone: 796-100. Telex: NZ4208. Cable: "Enzmeat". 76 77

Alpine Helicopters Ltd, Queenstown Airport, 1 R.D. Cromwell, New Zealand. Telephone: Queenstown 820 or 939, Arrowtown 857 (After hours). 78 79

Wrightson N.M.A. Ltd., Dunedin, New Zealand. Street Address: 184-194 High Street, Dunedin, New Zealand. Private Bag, Dunedin. Telephone: 774-309. Telex: NZ5657. Cable: "Wrightson". 80

Section 3 – Service Industries and Organisations

Department of Trade and Industry. Street Address: Bowen State Building, Bowen Street, Wellington. Private Bag, Wellington, New Zealand. Telephone: 720-030. 82

Development Finance Corporation. Post Office Box: 4019, Wellington, New Zealand. Telephone: Wellington 724-974; Dunedin 741-831; Christchurch 68-759; Hamilton 84-079; Auckland 32-049. 83

The National Insurance Co. of New Zealand Ltd., Dunedin, New Zealand. Street Address: 300 Princes Street, Dunedin. Post Office Box: 120, Dunedin. Telephone: 772-426. 84 85 86 87

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Fulton Hogan Holdings Ltd. Street Address: Main Road, Fairfield, Dunedin. New Zealand. Private Bag, Green Island. Telephone: 883-059. 90 91

New Zealand Cement Holdings Ltd., Christchurch, New Zealand. Street Address: 106 Hanson Lane, Christchurch. Post Office Box: 6040 Upper Riccarton. Telephone: 488-509. Telex: NZCMENT 4251. Cable: "Milburn" Christchurch. 92 93 94 95

New Zealand Electricity – a division of the Ministry of Energy, Street Address: Rutherford House, Lambton Quay, Wellington. New Zealand. 96 97

Clutha Valley Development. The Project Engineer, Ministry of Works and Development, Clutha Valley Development, Private Bag, Cromwell, New Zealand. Telephone: 50011, telex:5752. 98

Fletcher Holdings Ltd., Street Address: Fletcher House, 794 Great South Road, Penrose, Auckland. 99

Brambles International (N.Z.) Ltd. Street Address: Australis House, 36 Customs St East. Post Office Box: 3889, Auckland. New Zealand. 100

Pan Clipper Cargo. Street Address: Geoffrey Robert Road, Auckland International Airport, Mangere, New Zealand. Post Office Box: 53006, Mangere. Telephone: Mangere 55-777 or Mangere 57-032. 101

Government Tourist Bureau. Street Address: Guardian Royal Exchange House, Customhouse Quay, Wellington. New Zealand. 102

Air New Zealand Street Address: Air New Zealand House. 1 Queen Street, Auckland. New Zealand. Private Bag, Auckland. 103

Overseas trade representatives

New Zealand Trade representatives are stationed in the following countries. For further information write to: Department of Trade and Industry, Private Bag, Wellington, New Zealand.

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New Zealand Trade Correspondent,
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Brisbane, Queensland, 4001.

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00198 Rome.

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New Zealand High Commission,
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P.O. Box 1144,
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Hawaii 96815

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